



**PROGRESS REPORT**  
**ON THE**  
**FOREST ADMINISTRATION**

**OF THE**  
**MARWAR STATE**  
**(RAJPUTANA.)**



**FOR THE YEAR**  
**1915-16**

*(ENDING ON 30th SEPTEMBER 1916.)*

**BY**

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**JODHPUR.**

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**1917.**



## Review of the report on the Forest Administration of the Marwar State for 1915—16.

**PRELIMINARY** —The famine conditions which were occasioned by the failure of the monsoon rainfalls of 1915 continued during the first eight months of the year and adversely affected the administration of the Forests which depend upon good and seasonable rainfall for their growth and prosperity. Not only no improvements worth the name could be effected, but the Forests suffered a great deal owing to lack of moisture, unrestricted grazing which had to be allowed to save the cattle, and almost unrestricted permission given to famine stricken people to remove forest produce with which or by the sale of which they could tide over the hard times.

**CONSTITUTION OF THE FORESTS.**—There was no change during the year. The idea of placing a strip of land near Summairpur under Fuel and Fodder Reserves could not be carried out owing to the town of Summairpur having been converted into a Prisoners of War Camp. It is satisfactory that the existing boundary pillars were kept in repairs, many new ones erected and some old dry rubble pillars replaced by Pucca ones, and some boundary and fire lines were cleaned.

**MANAGEMENT OF STATE FORESTS.**—Owing to continued drought precautionary measures were taken, as far as possible, to save the forest stock, and hence all the available coupes were not worked upon. The preliminary working plan and the plan-of-operations were continued at some places. The existing roads and paths were kept in repairs and a new path about 40 miles in length through the heart of the Aravali Forests was cleared in order to facilitate patrol and inspection. Some fair weather cut-roads in many of the ranges were constructed by Famine Labour. The old buildings in almost all the ranges were repaired and some improved by additions and alterations, and also some new buildings, where required, were constructed. In order to remove difficulties of water, both forest officials and cattle, some new wells were sunk at convenient places and some old ones deepened. The damage caused to Forests by a large number of cattle which had to be admitted owing to scarcity of fodder and by natural causes owing to drought was immense.

**PROTECTION OF FORESTS.**—The Prevalence of scarcity conditions was responsible for immense forest offences both in the State and Jagir Forests. The number of such offences increases by 8.4 per cent as compared with those in the preceding year. The number of cattle impounded in both the forests for illicit grazing was much less than in the year before, the damage being 62.4 per cent. This was to a certain extent only apparent, and was due partly to the grant of free grazing concessions both to the rightholders and non-rightholders, and partly to the fact that since 1st January 1916

( A C )

some of the cattle pounds maintained by the Department were transferred to the General Cattle pound Department, and the cattle sent in the latter were not included in the list of those impounded for illicit grazing. There was only one fire occurrence against five in 1914-15, the fire having entered the Bali range from the Mewar side and burned an area of about 1000 acres.

**SYLVICULTURE.**—With the exception of certain rootsuckers, the young seedlings of all species dried up for want of moisture, and the torrential flow of water on the Arravalli hills caused by heavy falls of rain during the last quarter of the year washed away, at many places, flourishing patches of forest growth. The artificial reproduction in some of the denuded forest areas, and in the treeless sand dunes at Balotra, gave encouraging results. Taking everything into account, the work of Sylviculture was not so disappointing as was apprehended. Most of the experiments could not be carried on, but some of the foreign hardy species of trees from America, Australia, etc; which were planted successfully withstood the bad effects of want of moisture.

**EXPLOITATION.**—The quantity of major and minor forest produce that could be removed during the year, by departmental agency, by the contractors and right holders, and under free grants, decreased; and the revenue derived under this head was 21·5 per cent below that derived in 1914-15 and was 49·29 per cent of the total gross revenue of the Department.

**FINANCIAL RESULTS.**—Owing to continued adverse climatic conditions, the gross revenue of the Department was 20·2 per cent less than that of the preceding year, and the expenditure 13·4 less. Nearly 30 per cent of the total gross revenue was derived from the contract of Anwal bark. The department cannot therefore congratulate itself on the financial results but this state of affairs was mainly due to prolonged drought.

**GRASS STORAGE AND FUEL AND FODDER RESERVES.**—It is unfortunate that no new grass could be stacked and no ensilage operations could be conducted owing to new grass not having grown. The operations relating to fuel and fodder reserves, however, made some progress and it is satisfactory to note that an area of about 10 acres of sandy land near the Balotra Railway station was planted with indigeneous trees and shrubs to prevent the shifting of sand on the Railway lines.

**ARBORICULTURE.**—It is also satisfactory to find that road side plantations round about the city of Jodhpur and at several other places in the districts continued to do well and that a number of new plants put in.

**EXPERIMENTAL FARM.**—During the year under review an experimental Agricultural and Horticultural Farm close to the General Offices, at Jodhpur, was started. The preliminary works were undertaken and completed by famine labour; and it is expected that it will prove beneficial to the farmers and public in general.

**JAGIR FORESTS.**—Almost all the Jagir Forests administered by the State showed less income than in the year before and in some less than the expenditure. The unsatisfactory result was due to adverse climatic conditions. In some of the Jagir Forests, which have lately come under State Management, there was no income and the cost of supervision and management fell upon the State.

**GEOLOGY.**—It is satisfactory to remark that the Wolfram mines at Degana, the working of which was given to a syndicate, went on well and that over 43 tons of Wolfram were removed for supply to the Munition Board in England. Encouraging results were obtained of investigation about Graphite deposits in Sojat and Jetaran Parganas. The new coloured marble quarries at Bar and Raipur and Selenite, Gypsum, red and yellow ochres, Cabalti-ferous manganese, Stetitite, etc., that are found in some parts of the State were worked under Departmental agency giving some revenue, and it is expected that their systemetical working will largely benefit the State.

**MISCELLANEOUS.**—The Marwar Timber Factory continued to turn out useful furniture manufactured from indigenous timber mixed with foreign ones to give beauty and strength to the articles. The other local industries, such as Jodhpur Porcelain work, Bagri Lacquer work, Jaitaran Rohera wood carving work, etc; were being further developed. The extraction of Rosa oil, manufacture of Lac, etc. could not be continued on a large scale owing to failure of rains. A novel feature during the year was the opening of Famine Relief Works by the Department within the Forest areas to carry on necessary work, and those proved successful.

**CONCLUDING REMARKS.**—In taking all things into consideration, the work of the Department was satisfactorily conducted during the trying times of famine conditions prevailing during the first eight months of the year.

MERWANJI PESTONJI, B. A; L. L. B;

KHAN BAHADUR,

MUSAHIB ALA,

Raj Marwar.

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**PROGRESS REPORT**  
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**Marwar State**

For the year 1915-16.

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**INTRODUCTION.**

1. Verily, the natural law of compensation holds good, and such has been the repeated experience of ours, during the history of Forestry in Marwar. These days with an almost regular succession of recurring periods of Droughts and Famines, there is surely provided, in between, almost every 8th year, a compensating concurrence, of periods (though short) of Plenty and Prosperity, e., g., the dire Famine of 1900 was followed by plentiful productions of 1901; the disastrous frost and drought of 1905-06 by the most remarkable heavy rains of 1907-08, and so on; similarly, have our recent troubles, due to long continued severe droughts culminating in a dire fodder famine just over, been thrown into oblivion by the extraordinary rains (35-45 inches) up to the close of the year under report compared with an average of 15. Thus the present report will reveal alternating conspicuous scenes of adversity, relief and very hopeful prosperity.

2. As remarked, last year, vide para 1, the inevitable consequence of the severe fodder famine and general scarcity aggravated by the failure of the last Monsoons season, was the more liberally throwing open of state forests to free grazing and almost unusual concessions in forest produce to the afflicted people who have been benefitted to the almost incredible extent of Rs. 74,123- in terms of the roughly calculated money value of the multifarious and extensive direct and indirect relief afforded by the Forest as detailed in para 103 of this report. How eagerly and confidently, the afflicted people and animals, resort to forests, during the times of famine and other climatic adversities; and, how efficiently and readily the forest respond, has, more than once, been proved to us all; and this year's actual results, as detailed in para 103, add a further feather of lustre and enlightenment, trust and hope, for ever, confirming the belief that the forests form not only a source of revenue to the state, but are a sheer indispensable necessity and infallible refuge to the whole country, during many an adversities.

3. In order to immediately and directly help the famine stricken Forest villagers and to utilise the opportunity for creating means to mitigate future famine effects, as far as possible, this Department had also to participate in the huge and excellent programme of Famine operations of the State, devising and conducting, useful and economical works much needed and instructive in the localities in which they occurred.



4. Despite the above indicated remissions and adverse conditions, the Finance of the Department has been very satisfactory, the gross Revenue Rs. 97,757 rising above the estimated figure by Rs. 24,372, while the expenditure of Rs. 70,882 remained very near the anticipated figure. This is still an average of the best results recently achieved; and, far above the past average of before 1911-12.

## CHAPTER I.

### CONSTITUTION OF FORESTS.

#### *Section 1. Alteration in areas.*

1. The proposal to bring a strip of land near Sumerpur under Fuel and Fodder Reserves having been abandoned in view of the recent changes in the scheme of the new population, on account of War, there was no change in the area, which stood as follows, at the close of the year:—

		1913-14	1914-15.
Protected forests ...	{ Khalsa	... 291.42 sq. miles	291.42 sq. miles.
	{ Jagir	... 114.13   ,,	114.13   ,,
		405.55 sq. miles.	405.55 sq. miles.
Unclassed land or public forest ...	{ Khalsa	... 22.61   ,,	22.61   ,,
	{ Jagir	... 19.30   ,,	19.30   ,,
	Total	... 447.46   ,,	447.46   ,,

2. The area under forest conservancy is divided as follows:—

Forest conservancy	... 405.55 sq. miles.
Fuel and Fodder Reserves	... 22.61   ,,
Jagir unclassified forests	... 19.30   ,,
Total	... 447.46

For facility of management and working, the Ranges were experimentally grouped into Divisions as follows:—

- (1) Eastern Division:—Bali, Desuri and Sojat.
- (2) Western Division:—Jaswantpura, Jalore and Siwana.
- (3) Direction Division:—Parbatsar, Jetaran, Pali, Barmer and Jodhpur.

#### Section II. Forest Settlement.

3. All Jagir forests, except Puran in Jaswantpura and the petty areas in Parbatsar, have been practically settled; and the demarcation shall be taken in hand, the next year, as conditions seem to be favourable.

#### Section III. Forest Demarcation.

4. The existing boundary pillars were white-washed and kept in good order in almost all the Ranges costing Rs. 21-12-0.

5. Further improvements in demarcation were effected by:—

- (a) replacement of 75 dry rubble pillars by Pucca ones in Desuri and Banwal and Bassi forests of Eastern and Direction Divisions, cost Rs. 75.
- (b) enlargement of 280 kucha pillars in Siwana for Rs. 10-12-
- (c) renewal of 80 Pucca pillars damaged by rain and cattle, in Jalore and Desuri forests, at a cost of Rs. 24-7-9.
- (d) clearing by departmental agency of 100 feet wide internal combined boundary and fire lines, over 43 chains of Jagir half between Kalab (Jagir) and Khoria (Sojat Range) forests, @ a cost of Rs. 7 yielding 228 mds. fuel;
- (e) 120 chains of outer Guzara boundary line of Bhatund and Bijapur forests being cleared, through a contractor, yielding Rs. 76-9- as revenue.

Rs. 61-12- of royalty were realised during the year for the produce obtained from the boundary clearings of Nana and Behra forests during last year.

6. The Marwar-Meywar frontier boundary fire line clearing was, after all, restarted after a long break, from the trijunction pillar of Gorla and Korla (Marwar) and Bokhara-Bogal (Meywar), where it was left in 1902, and 595 chains were cleared up to the trijunction pillar of Marwar (Kurna and Wav), Meywar (Keraich) and Mirpur Jura, where it stopped again owing to want of ready co-operation of the Mirpur Jura authorities, who are being moved through the proper channel. 7 1/4 Miles were done for Rs. 157-14-0—

7. The preliminary inspection report for boundary record of Marwar Meywar boundary was drawn up showing serial Nos, and superficial distances from pillar to pillar from Kot (Marwar), Dewair (Merwara and Amet (Mewar)-Sirohi border at Thandiberi after finishing the Meywar-Marwar and Marwar-Mirpur Jura common frontiers, aggregating to 60 miles.

Similarly, a regular and full record of the outer forest and Guzara boundary over 19 miles for Kantalia, Latara and Siriari blocks was prepared.

#### Section IV. Survey.

8. The Survey staff, except for about 2 months in the beginning of the year, remained wholly engaged on the survey, levelling, designing and Engineering operations of the numerous, though petty Famine Relief works conducted through this Department, as detailed in Paras 102 and 103; so the detailed forest survey of only 3 blocks of Kantalia and Sewari partially, and Latara wholly could be done; and 100 copies of the map of Latara were printed, besides the boundary record work noted in para 7 supra. The total cost of Survey and Working plan operations came to Rs. 2,176-3-.

## CHAPTER II.

## MANAGEMENT OF STATE FORESTS.

*Section 1.—Regulation of Management.***(a) Preparation and Control of Working Plan.**

9. As a preparatory measure, and in order to create demand, invite experienced contractors and collect data for future working, a coupe in Banwal forest, 40 acres in area, was leased out @ Rs. 5 per ac., yielding 1,058 mds., fuel. Another coupe of 20 ac. in Bassi forest has been proposed and shall be cut the next year. In Aravalli Division, 16 coupes became available for felling during the present year, out of which Nos. 7 of Saran, Kantalia and Khorla, Nos. 4 Kot. Nos. 5 and 6 of Jojawar were leased out to contractors @ an average rate of Rs. 4-9-1 per ac.. Of these, 4 were cut and cleared, 2 of Jojawar remaining unfelled owing to the transport camels of the contractor having been engaged on fuel supply to the Prisoners of War Camp at Sumerpur, other means of transport being not available on account of famine.

30	acs.	of coupe No.	10	of Nana
32	"	"	"	6 " Latara.
30	"	"	"	8 " Bijapur.

were cut departmentally to supply the demands of the Sumerpur Turkish Prisoners of War Camp. Extension was given to the contractor of Bagol coupe No. 3 for working it.

Owing to drought and famine, in order to save the Forest stock from falling into a precarious condition, the remaining coupes were not attempted for felling.

**(b) Preliminary Working Plan.**

10. The small and detached block of Depawas was separated from the old Aravalli Working Plan circle and amalgamated with the N. Aravalli or Jaitaran-Parbatsar circle, in order to suit the modified conditions of this new and separate felling series.

11. The proposals for Jalore-Jaswantpura Khalsa forests have been drawn up and put in force experimentally by starting Depot system, to create demand and introduce into markets the recognised products in a well fashioned and economic form, finding utility for the newly discovered ones.

**(c) Plan-of-operations.**

12. They were, as usual, prepared and acted up to, except the proposals under artificial reproduction, utilisation of minor products and pushing on of minor industries which could be carried out only on a limited scale owing to adverse conditions. On the other hand, the working for major produce chiefly fuel and charcoal and improvements in and opening of new communications had to be greatly augmented.

## Section II. Communications and Buildings.

## (a) Roads and Bridges.

13 Repairs to existing roads and paths were made as follows:—

	Length repaired	Rs. as. p.
Bali Range ..	2,651 chains	66 3 0
Sojat Range ...	510 ,	40 0 3
Jaswantpura Range ...	80 „	5 0 0
Siwana „ ...	90 „	20 8 9

14. In order to facilitate the patrol and inspection of forests by the Forest, Sayar, Police, &c, officials along the short-cuts and more frequented paths, the old “Chorbut” running lengthwise, all through the heart of the Arayalli forests, from Nana to Khorla, was cleared, improved or repaired, over an aggregate distance of 40 miles, to convert it into a bridle path for riding, at least, @ a cost of Rs 664-2-3 as under:—

Bali Range, from Bothra to Malari Nal	... 21 miles	Rs. 153 3 0
Desuri Range, from Piplodi to Dewar pass,	... 12 „	„ 199 5 6
Sojat Range, Jojawar to Saran & Era-beri to Rupa-rail	... „	„ 311 9 9

15. The following forest cart tracks and paths were constructed as Famine Relief works, in order, both to facilitate the extraction of produce and to render the passing traffic, along the more frequented path, easier and safer, especially in times of famine or scarcity, when the weak staggering cattle migrate by thousands along the hilly passes, where they suffer, if these be not properly repaired.

1. *Bali Range*—Kundal-Goria, fair weather cart-road, 8 miles, to facilitate export of Forest produce and general traffic between Meywar and Marwar Rs. 1,496-5-.

2. Roopani-ka-Barrla-Nagar, camel bridle path, 2 miles opening a rich forest, Rs. 2,536-12-9 (including no. 3 & 4 below)

3. Kaneria-Piplorian-plateau-Khila-Kanagurh (the highest peak) inspection path, 5 miles, rendering the inspection, exploitation of the most difficult and valuable high zone forest, easy.

4. Piplun-Bararrian-Benkali bridle path, 4 miles for facilitating transport of fuel by camels.

5. *Desuri-Range*—Inspection path from Cheetan-ka-Bera to Ghanerao border, via Raipur, to render easy, the patrol of the lower dense rugged jungle, much open to trespass 8½ miles. Rs 411-12-6.

6. *Sojat Range*:—Shiriari Pipli Ghata cart road, 6 miles, to improve the old historic Shiriari Ghata (pass) Rs. 433-15.

7. Taka-magri-Kajalwas inspection path providing a short-cut and efficient means to visit the high Gorum hill forest and Trigonométrical bench mark temple, 4 miles, Rs. 362-1.

8. Jhandu-ki-Bali to Jamura, cart track, 7 miles, connecting the Bhim-Jamura Pucca road of Br. Merwara to the kucha cart tracks of the plains of Marwar up to Sojat Road Ry. station Rs. 2,734-7-3.

9. Improvement and repairs to the Balagudh plateau (Khoriz forest) net work of bridle and inspection paths and connecting them with the Gudhajati interior paths up to Era Beri in Badagudha forest Rs. 255-2-3

10. *Jodhpur Range*:—In order to provide comfort, efficiency and economy the most frequented cart tracks of the Forest Depot and Jodhpur Agricultural Farm were connected with the nearest P. W. D. Pucca roads, the former by means of a 401 ft. long stone paved road 10 ft. wide right up to the heart of the depot; and the latter by a Kanker metalled circular road, <sup>2857</sup> feet long up to the main gate, @ a cost of Rs. 626-11-9 and Rs. ~~19-1-2~~ <sup>19-1-2</sup> respectively.

11. *Jalore Range*:—To avoid going by a circuitous long route towards the backside of the Jalore Range hills, where the grass and grazing area of the town and the better part of the forest lies a more direct Ghati (pass) through Poora Jorr, was improved and made passable for carts, 85 chains long @ a cost of Rs. 308.

12. *Jaswantpura Range*:—The almost inaccessible, but rich lovely lap-land, amidst high circle of peaks at Sunda Mata, was made easy of approach and working, by a judiciously laid out bridle path 80 chains for Rs. 5.

#### (b) Buildings.

16. Repairs to existing buildings were made as noted below:—

(1) Aravalli Division, for Rs. 144/13/-. (2) Western Division for Rs. 58/15/6. (3) Direction Division for Rs. 15/2/-.

17. *Bali Range*:—Improvements in the existing buildings were effected as follows:—

1. Nana Choki, a new timber shed for Rs. 54/3/-
2. Behra Choki, the old fallen timber shed was re-erected, Rs 6/-.
3. Bijapur Choki a shed, latrine and Chabutra were added for Rs. 30/3/6.
4. Sewari Range office Moharrir's quarters, timber shed and 2 partitions in the Range quarters were added at a cost of Rs. 97/5/9.
5. Lunawas Choki Rs. 41/4/3.
6. Erinpura Road Depot:—The Moharrir's quarters were suitably arranged, screened and increased for Rs. 32/-.
7. Falna Depot:—Quarters for Chokidar and Moharrir were provided for Rs. 47/13/-
8. Summairpur Depot:—Permanant Choki was made in place of grass hut for Rs. 64/3/3.

9. Nana Depot:—fencing was renewed for Rs. 15/-.

18. In order to locate the Forest patrols, inspecting officers and seasonal labourers, in the heart of the forest, for the manifold objects of better management, protection, exploitation, &c; new Chokis were erected at:—

1. Bhimana adjoining the Hawala Kotri Rs. 20/- (2) Wao Rs. 35/- (3) Kundal Rs. 20/- (4) Piplun Rs. 32/11/3.

19. *Desuri Range*:—In order to locate the new Division quarters in the centre of the Division as far as possible, an adequate, well planned, yet cheap set of buildings for office and private quarters of the staff together with a Depot, orchard and a nursery attached to the Pucca and enlarged well there, were built @ a cost of Rs. 3,795/1/6 as a Famine Relief Work.

20. 2 new interior Forest Chokis at Ranpur and Darra were built @ a cost of Rs. 38/13/6 and Rs. 40/6/- respectively.

21. Additions and improvements to the following existing buildings were made:—

Somesar Choki a tiled roof Verandah, for Rs. 13/5/.

Desuri Range office:—Office room and compound for Rs. 86/5/3.

Bagol Choki:—Timber shed and Verandah for Rs. 26/12/6.

Rani Depot:—Muharrir's quarters, for Rs. 68/8/6.

22. *Sojat Range*:—New interior Forest Guards' Chokis were built at:—

Gudha Bhopat:—for Rs. 38/-, Jamura Rs. 43/3/6, Dhareshwar Rs. 32/12/9.

Eraberi Rs. 43/3/6 Khejri-ki-Guar Rs. 40.

23. The old delapidated Choki at Kalighati was rebuilt for Rs. 48; and that at Khorla was improved for Rs. 42/8/-. A hut was also made at Guirya station (R. M. R.) for the Depot Moharrir @ Rs. 34-14.

24. The long felt want of a Pucca Range office and quarters at Saran was removed by constructing an accomodious Pucca office and Ranger's quarters @ a cost of Rs. 1491-3-3 out of which Rs. 133/8/- were charged to Forests and the remainder 1352-11-3 to Famine Funds.

25. *Jaswantpura Range*:—A Timber shed was added and certain improvements made to the Range office for Rs. 25/14/-.

26. *Jalore Range*:—Division and Range quarters by the side of an old Baori called Amrabao (stepped well) for nursery purposes were constructed for Rs. 2033-14-9 as a Famine Relief work.

27. *Siwana Range*:—A timber shed was added to choki at Kundal for Rs. 26/4/-.

28. *Jodhpur Range*:—In the large Forest Depot at Jodhpur an old stone lined well built Baori (stepped well) was improved, roofed and converted into a store-house, through the P. W. D. Rs. 310/5/9 having been spent by Forest Department's Famine Funds, to give a finishing touch to the work.

Pucca bullocks shed, cart driver's and 2 Chokidar's rooms, 8 platforms and tree guards, &c. were also built for Rs. 554-15-9 out of Famine Funds.

29. *Parbatsar Range*:—A ready built house was purchased for Range quarters at Banwal for Rs. 32/14/-.

(c) Other works.

30. In order to mitigate the watering difficulties of almost innumerable starving cattle and relief seekers roaming about in these hill forests, especially during famines and scarcities and to provide wholesome water, all through, at our Forest stations, Pucca wells with watering troughs, waterlifts, &c, facilities have been provided at well chosen sites, as noted below conducting them as Famine Relief operations.

1. A new broad well at Gorla-amongst the Grassi as hamlets near the Marwar Meywar border, on the well frequented Gorla Pass and in the Forest Choki, there. Copious water resources of the underlying rock strata in the well rendered it unnecessary to dig it deeper and savings are being utilised to improve the old wells at Patarian and on the same road, cost Rs. 400/.
2. A new Pucca lined well in Nana Forest Choki with a Persian wheel outfit, a set of trough, channels, &c; to serve the Depot labourers, cattle, villagers and a small nursery. A little more deepening in hard rock is still necessary to obtain permanent water supply cost Rs 361/14/9.
3. A Chabootra and watering trough has been added to the well at Bhimana Hawala-ki-kotri, Rs. 10.
4. Improvement of the reservoirs and shed at the well-known and much resorted to perennial sacred spring at Har-Gunga, Rs. 91/2/3.
5. Deepening, repairs and improvements to the "Sarkari Paoti" well at Sewari, with watering troughs, channels, &c; to form a nursery and Farm as well, Rs. 539/6/3
6. Deepening and repairs to the springs at (1) Kunwarji-ki-wao, Rs. 56/13/3 (2) Karaanwas Rs. 29/14/0 (3) Patarionki-beri, Rs. 10.
7. Deepening and Pucca lining of (1) Mahadeo-ji-ki-Baori in Lunawas, Rs. 50, and Pichka Bera in Latara forest, Rs. 15.
8. Chhevtan-ka-Bera, deepening, repairs, to Kheli, &c; Rs. 16/14.

- 9 Enlargement of the Sadri Forest Division well with a Persian wheel, trough, pressure reservoir, &c. mentioned in para supra, Rs. 605/6.
10. Deepening and improvements of the Pucca well at Desuri Range Office for watering facility to villagers, forest nursery and Balads (bullock caravans), &c, passing along this renowned and easiest pass between Marwar and Meywar, Rs. 299/3/9.
- 11 Deepening of Pechka well at Vagol and other small Berces (water pits) in the nearer forest Rs. 39/15/9.
12. A new Pucca well at Jojawar Forest Choki with watering troughs, Persian wheel &c. for a nursery and Farm Rs. 536.
13. Improvements to 2 Pechka Baoris and 2 nursery wells, reservoirs, &c at Saran Range head quarters, Rs. 976/6
14. Contribution to a new Pucca Pechka Baori at Badagudha village near Forest Choki Rs 200/.
15. A new pucca well, with Persian wheel, troughs, reservoir, &c., at Sojat road station (R. M. Ry.) in Forest Depot for arboricultural and Industrial purposes, Rs. 762/4.
16. A new small sweet water well, with troughs, &c, at Chandawal station (R. M. Ry.) near Forest Depot. This is decided advantage for the Depot, Railway traffic, new grass Farm, &c , there, cost Rs. 317/15/3.
17. Excavating and rebuilding the old 125 ft Pucca well in Poora Jorr near Jalore town; to mitigate the badly felt water scarcity in these dry sand dune forests providing the main grass and grazing ground for the large town population, cost Rs. 552/13/3.
18. Contribution to the improvement of Sakleshwar Mahadeo Baori in Siwana Range Rs. 5/-
19. Deepening and maintenance of some of the wells at Jodhpur, cost, Rs. 997-11-9.
20. Other Beris (water pits) cost Rs 565/11.

Besides the above, a masonry Bundh was constructed and canals laid and well repaired at Sunda Mata plateau to collect water on this high table land to raise and enrich the water level at foot of the hills and serve the nursery in the lap of the hill tops cost Rs. 970/14/-

32. 2 cattle pounds costing Rs. 72/2/9 and Rs. 15 were made at Marwar Junction and Chandawal Depots, respectively, cost paid from the cattle pounds funds.



## Section III Protection of Forests.

## (a) GENERAL PROTECTION.

33. The damage to the valuable forests of Nana and Behra continued to be as usual by the licentious goat grazing of the semiwild grassias, as on account of the prevailing famine conditions no restrictions suggested last year could be enforced.

34. 612 and 86 cases of forest offences were detected in the State and State managed Jagir forests, against 577 and 21 of last year, the increase being due to scarcity conditions; of these, <sup>637</sup> and <sup>8</sup> were compounded departmently and being chalaned to Hakumats and courts of the Jagirdars.

The following table compares results of this and past 3 years:—

Class of offences.	Average for past 3 years.	Offences during the year.	Remarks.
Injury to forest by fire ...	6	.....	
Unauthorised fellings or removal of produce	166	234	
Grazing ... ..	206	205	
Other offences ... ..	36	209	
Total ... ..	414	648	

35. 1084 cattle in State forests and Arboriculture and 1459 in Jagir forests were taken to Forest cattle pounds for illicit grazing against 5587 and 1,189 respectively last year. The decrease is due partly to free grazing concessions having been granted to both the rightholders and nonrightholders, and partly to the cattle pound business having been separated altogether for financial purposes from 1st January 1916, the management being still left to the Department of the general cattle pound at Nana Sewari, Sadri, &c.

the results of this latter separate working were:—

Cattle impounded	...	...	3,269
Revenue	...	...	492 1 3
Expenditure	...	...	376 10 0

## (b) PROTECTION FROM FIRE.

36. There was only one occurrence of grand fire in Bijapur forest of Bali Range by a fire entering from Meywar side, burning an area of about 1000 acres. The decrease is due to the production of grass and other combustible material being far less than usual and old stock having been swept clear by famine stricken people and cattle. There was little necessity for clearing. The cost of fire protection came to Rs. 7 against Rs. 246 last year.

## (c) PROTECTION FROM CATTLE.

37. This was a year of aggravated scarcity and grazing difficulties, extraordinary concessions had to be granted by the Durbar to cattle graziers and fodder collectors with the result that the already exhausted Forest vegetation dry and green was left to the mercy of the starving cattle and desperate greedy people, the grazing incidence rose to an unbearable degree and indiscriminate hacking down of anything green was too common.

85,227 cattle in Khalsa and 11,897 in jagir were admitted for grazing against 46,251 and 17,905 respectively, last year.

Increase in Khalsa is due to cattle from all parts of Marwar having been admitted free and treated more liberally, the forests being better stocked with fodder of past years production while the decrease in jagir areas is due to their cattle having migrated to better parts in Marwar or outside, and their forests being comparatively poor.

38. For the first time in the history of Forest conservancy in Marwar Sheep were admitted @ ₹ 1/3 per head p. m. with a maximum limit of ₹ 1/- for the whole grazing season for grazing in hitherto reserved areas causing the prevention of the intermixed goats in the herds from grazing and damaging plants, the most complicated and difficult.

## (d) PROTECTION AGAINST INJURIES FROM NATURAL CAUSES.

39. Severe drought conditions continued throughout the major part of the year, bringing in its train conspicuously accelerated evils fully and vividly described in the last year's report vide para 37 until stopped by the bountiful rains in the last quarter of the year under report.

40. The locust pest has disappeared altogether except a few scattered batches observed in its winged stage in the beginning of rains struggling as a last remnant as though for the preservation of the species.

## Section IV Sylviculture.

## (a) Natural Reproduction

41. The young seedlings of all species everywhere dried up. The root suckers of Kamli (*D. Cineria*) siris (*Albizzias*), salvadora &c. however, stood well on favoured localities. Samplings and poles of Semal (*B. malabaricum*) Sargoora (*M. Pterygosperma*) Salar (*B. Serrata*), &c. in certain places have escaped almost intact.

42. The production of new seeds and with it that of new seedlings was of course, limited especially in case of delicate species such as Chir (Pongamia, *Ficus* spp. siris, &c., or fodder yielding plants repeatedly or heavily lopped e, g, Dhak (*Butea*) Salar (*Boswellia*) Neem (*Melia*) Dhau (*Anogeasus*), But, seeds of certain species that retain germinative power for more than one year, such as Acacias, Ghitaram &c. have germinated well under very favourable vegetative activity <sup>that</sup> was strong enough in consequence to recuperate the losses caused by the past drought series, although the effects on the woody parts causing severe deformities, loss of important members &c. will last for long time to come.

43. The rainfall was extraordinarily heavy amounting to 35" on an average, the maximum being 40 in Desuri forests; and its most striking feature was extremely sudden and strong down-pours of 8" to 18" in a day on 2 or 3 occasions, causing unusually heavy floods in the torrential flows of Aravallis hills, rivers, carrying away million of maunds of earth, stone, debris and wood; causing huge landslips in Sadri, Gorum &c., hills, breaking through old and large Bundhs such as Jograwas, Baniawas, in the plains nearer the forest hills; and partially washing away considerable length of Railway in their way. Coppice shoots in new coupes gave <sup>good results</sup> about 5 per cent of old or dried up stools of Dhau, Bor &c. on dry slopes totally failed to resprout.

While those in the older coupes are well on their way to recover from the damages of the droughts and grazing. Blanks in the older coupes were filled up by broadcast sowings, dibbling, &c. of seeds of Forest spp. ~~for~~ free.

44. The work of <sup>seed</sup> collection and distribution to public and sowing in state forests etc. was continued.

#### (b) Artificial Reproduction.

45. The work of reclamation of denuded forest areas at Deolimurdawa, Latara, Dhana, in all Divisions or naked rocky hills at Chhitar and treeless sand dunes at Balotra has met with an encouraging success by proper selection of very hardy indigenous <sup>spp</sup> such as *Prosopis spicigera*, *sabadora* or exotic adopted Babul, Anwal & species like *Atriplex* spp. and *Prosopis Juliflora*, which have proved specially fast growing, easy of propagation and hardy, where over 10,000 seed plants from past and present years' broadcast sowings in ploughed lands, sowing in specially prepared pits, dibbling, &c. have spring up and appear to be well established in spite of the long continued adverse conditions. The total cost on these operations was Rs. 128/9/-.

46. Nurseries were maintained at the following places with results noted against each:—

In Aravalli Division—nurseries at Sewari, Nana, Sadri, Desuri, Marwar Junction, and Sojat Road, contained 800 plants of sorts.

In the Western Division.—nurseries at Sunda-mataji and Jalore had 4000 plants, for details of nurseries maintained for the combined purpose of Aravalli Forest and Farm in the Direction Division, see page 20 of this report.

The total expenditure on purely Forest nurseries came to Rs. 626. The minor plant raising operations at Nana, Sadhri, Hargunga and Desuri being conducted by Forest subordinates in spare hours 1500 plants from these nurseries were put out in forest public and special plantations and along roadsides, &c., the adverse conditions of the year not permitting any extensive planting in forests where irrigation was impossible.

## (c) Operations for the Improvement of the Growing stock.

47. As mentioned in para 45 of the last year report the operations of disentangling and clearing droughts-stricken forest growing stock, removal of dry dying wood, were continued on an extensive scale in all the forests of Aravalli Divisions; the Western and Direction Division also practising it mainly in Jaswantpura and Jalore and some of the Jaitaran Range forests respectively.

48. Bamboos clumps were freed of dry clumps; in Jaswantpura forests by removal through purchasers @ reduced rates and departmental agency and in Bali Range free by rightholders and famine relief seekers along dry grass and fuel removals.

49. On account of famine, the Bhils of Jalore proved troublesome in illicit felling of green wood and badly cut or mutilated stumps in Baba-ka-Pahar were dressed departmentally at a cost of Rs. 9/4/-

50. A sample plot, 2 acres, in area, was marked and fenced and placed under experimentation and observation to collect data for Working Plan in these newly reserved areas, (@ a cost of Rs. 11/14/-.

## (d) Experiments.

51. In order to place the ensilage experiments on a regular and sound basis a set of Pucca and methodical Silos were constructed and silo making will be started the next year on a supply of silage crops being available, as dealt with in detail under "Grass storage" further on.

52. The Lac propagation suffered from the same adverse conditions of drought &c. mentioned in para 48 of last year's report. However, a small attempt was made in Jaswantpura forest 3700 seeds sticks being put on for inoculation @ a cost of Rs. 9/-.

53. The margosa (Nim seed) oil expression was tried but did not prove recuperative owing to less production and bad quality of seed owing to drought and grazing and lopping of Nim by famine Relief seeker.

54. The Rosa oil wet distillation was resumed at the close of the year and its results will be noted the next year although the crop of grass was poor despite the most favourable rains as most of the clumps dried up, the weaker ones ~~ex~~ were choked up by dense growth of inferior grass such as Kair, Soolwala, &c. which generally have an upper hand for a little while after famine times.

55. Of the newly introduced exotics from America, Australia &c. those noted last, year. paras 49 and 50 were further tried. Of these the Atriplex and Parkinsonia have given entire satisfaction and seem to be established beyond doubt. The former besides being very hardy drought resisting and impune from goat and camels covering very dry poor shifting sand dunes @ rate of 100 sq. ft. a year and the latter proving a great resistant of drought and browsing injuries two very dreaded and frequent agents of vegetable destruction in Marwar.

In order to scientifically investigate the possibilities of utilising our Gugal (Balsamodendron Mukul) oil-resin for yielding a metal polish and our newly adopted Dasan (Rhus mysorensis) bark, *research is going on*

56. Minor experiments already taken in hand consist of:—

1. Manufacture of rubber from an indigenous hardy creeper (cryptostegia grandiflora).
2. Dry destructive distillation of wood of a high calorific power both for the production of best and highest yield of charcoal and other bye products
3. Utilisation of drugs.
4. Extraction of the Gum-resin from Salar (*Boswellia serrata*)
5. Utilisation of floss, bast fibre and milk of Ak (*Calotropis gigantea*).

## Section V Exploitation.

### *A. System of Management.*

#### (a) Major produce.

57. The coppice with standards system was worked as much as the adverse famine conditions allowed, most of the fellings took the shape of irregular felling and lopping of trees specially of fodder kinds as thousands of cattle and men depended for their bare living upon them.

#### (b) Minor produce.

58. The conditions of working remained almost the same as enumerated in para 53 of the last year's report on account of famine.

### *B. Agency of exploitation.*

#### (a) Departmental agency.

59. 23,401 cubic feet of timber and 308,196 cubic feet of fuel which include 11,145 maunds of fire wood consumed in preparing 2229 maunds of charcoal, were removed during the year against 52,359 cubic feet and 267,998 cubic feet respectively in the last year. The fall in timber is due to decreased demand for agricultural operations for adverse condition of the year while the increase in fuel is chiefly owing to the greater supply of same for the Turkish prisoners camp at Summarpur and availing the advantage of making a stock for it with purchasing the quantity removed by public as famine concessions.

The total revenue realised through the departmental operations came to Rs. 48,185/14/5 on 49.29 of the total gross revenue against Rs. 61,351/14/7 of the last year, out of this Rs. 2,190/13/3 were received on account of sales of minor produce.

The value of minor produce removed during the year is shown in the statement given below:—

Particular of produce.	Value Rs.	Remarks.
Bamboos ... ..	1,061	
Grass ... ..	...	
Honey, hides and lac &c. (animal products) ... ..	60	
Gums, fruits & leaves &c. ... ..	3	
Miscellaneous ... ..	80	
Total ... ..	1,204	

(b) Purchasers.

60 The purchasers removed 7911 cubic feet of timber and 143158 cubic feet of fuel against 18,577 cubic feet and 1,20,000 cubic feet respectively the last year. The decrease under timber is due to the reason already stated in para above, while the increase under fuel is consequent upon the labouring class securing their livelihood by sale of fuel in absence of their agricultural engagements on account of bad year. In the timber 7911 cft. are included for head loads of kamries removed by local purchasers.

9102 maunds of firewood and 7978 maunds of charcoal were extracted by the contractors from their coupes which are included in the quantity of fuel shown above.

61. The sales of bamboos and other minor produce including grass and grazing amounted to Rs. 451/- and Rs. 36,924/- against Rs. 1,044/- and Rs. 29,464/- respectively of the last year. The increase is due to ~~Annual~~

Particulars.	Value Rs.	Remarks.
Bamboos ... ..	451	
Grass Rs. 75 grazing grass Rs. 2,212.	2,287	
Honey &c. animal products ... ..	4,146	
Minerals and stones ... ..	275	
Animal bark ... ..	29 256	
Gums and fruits &c. ... ..	872	
Miscellaneous ... ..	88	
Total .. ..	37 375	

## (c) Rights and privileges,

62. The total quantity of timber and fuel removed by rightholders during the year was 40,809 cubic feet and 313,911 cubic feet respectively as compared with 24,190 cubic feet and 72,700 cubic feet of the last year. The increase is due to the fact that agriculturists and other labouring class people took to the removal of forest produce to make a stock for their bonafide use for the expected ensuing good years. The well dues received from rightholders during the year amounted to Rs. 2,378 Rs. 4/- were received as the price of bamboos and Rs. 3,019/- as that of the other minor produce against Rs. 264/- and Rs. 9,110/- respectively last year. The decrease is attributed to the such removals by rightholders being included under the head of free grants as had taken place for the period for which the free concessions were granted by the Gracious Darbar on account of famine conditions.

## (d) Free grants.

63. The free grants made to the rightholders and permitted non-right holders came to the estimated value of 35,024/- as shown in form No. 58.

## (e) Outturn and sources of Forest produce.

64. The total outturn of major produce is calculated to be 72,121 cubic feet of timber and 4,84,327 cubic feet of fuel as against 1,01,891 cubic feet and 686629 cubic feet respectively the last year.

## CHAPTER III.

*Financial Results.*

65. The following table shows the revenue and expenditure of the year under report in comparison with those of the preceding year and the average of past 5 years.

Year.	Receipts.	Charges.	Surplus.	Remarks.
	Rs.	Rs.	Rs.	
1915-16 ... ..	97,757	70,881	26,876	Includes Fuel and fodder reserves as well as Geology.
1914-15. ... ..	1,22,542	81,833	40,709	
Average of past 5 years.	90,248.	59,427	30,820	

66. The revenue realised from major produce came to Rs. 52,917-12-2 showing a decrease of Rs. 15,971/-3-2 as compared with that realised during the last year.

It is 54-13 per cent of the gross revenue.

67. The Sales from minor produce including bamboos, grass and grazing came to Rs. 39,708-10-3 showing a decrease of Rs. 4,270-6-3 as compared with that realised during the past year. Looking to the unprosperous aspects of the year the decrease would have been far more than as

really effected but it is for the Anwāl (cassia auriculata) bark contracts that brought in good sum for favourable conditions of the market. The realisations under this head represent 40·62 of the gross revenue Rs. 5131-2-6 representing 5·25 of the total revenue were realised from other sources including fuel and fodder reserves; 4,929 per cent of the total revenue realised through Raj. agency and 50·71 per cent other-wise.

68. The total expenditure of the year amounted to Rs. 70,881/5/- showing a decrease of Rs. 10,951-15-11 as compared with that of the last year.

67·46 per cent of the total expenditure was increased on account of extension &c. while 32·54 per cent have been spent on establishment.

## CHAPTER VI.

### *Administration.*

69 The relations with the Hawala, Customs &c. Departments were generally harmonious and the supply of camel Sawars and peons by Military Department for Dak purposes was fairly satisfactory.

70 Babu Atma Ram Gaur; Survey Officer worked satisfactorily as besides his usual duties, he proved helpful in the collection of data for working Plans, and in the designing and general conduct of the Engineering portion of the Famine Relief and Forests works.

71. Babus Gokal Chand, Daulat Ram Seni and Sita Ram remained in charge of Western, Eastern and Direction Divisions respectively giving satisfaction of these Babu Daulat Ram Seni deserves special mention for the successful working of the biggest and most important Division maintaining the revenue to its normal limit despite famine conditions; while, Babu Sita Ram did well in the acquirement of qualifications in agricultural subjects and looked after the experimental Farm at Jodhpur

72. Babus Sukh Raj Byas and Khive Raj Solankhi Deputy Rangers held charge of Sojat and Bali Ranges in the early portion of the year and were subsequently wholly placed in charge of the Famine Relief Operations in their respective Ranges, the former could not shew satisfactory results anywhere and the latter too requires warning to make a really good Range Officer.

73. Foresters, Head guards and others generally worked well, the following statement shews the punishments awarded to the lower ranks:—

Class of Subordinates.			Dismissals.	Reductions.	Fines &c.	Remarks.
Dy. Rangers	...	...	...	...	3	
Foresters	...	...	...	...	5	
Head guards	...	...	...	...	9	
Muharirs	...	...	9	...	53	
Guards	...	...	12	...	47	
Clerks	...	...	1	...	6	



74. An attempt was made in the Survey Branch to impart preliminary technical training to selected members of the lower subordinate Forest services, but before the first batch could come out successful the Famine conditions pressed so hard that sufficient hands could not be spared for the purpose.

## CHAPTER V.

### *General.*

#### **Section A Grass Storage and Ensilage.**

75. Owing to famine no fresh additions to the stock of grass could be made, and out of the last year's balance of 4720 maunds, 3066 mds. 31 srs. were disposed off leaving 1653 md. 9 srs. in hand at the close of the year. Rs. 235/14/3 were spent under this head for improvement of sheds and lucerne mainly.

76. In order to start the ensilage work on a sounder basis and in a business-like manner, 2 Forest officers Babu Sita Ram and Khive Raj were deputed to the Ewing Christian College Allahabad, to pick up Silo making business worked on modern lines and they came back well acquainted with it and allied subjects. Also, in order to avoid wastage and injurious weather influences, better silos were constructed with famine funds at the following places:—

1. A Pucca 12' D 15½' length silo of 1077 mds. capacity (stone lined, concrete base and thatched) at Jodhpur.						
Farm...	...	...	...	Rs.	258	5 6
2. At Saran forest nursery	...	...	...	"	186	5 6
3. At Sewari forest nursery	...	...	...	"	661	2 0
4. 2 Kutcha silo pits, one in Bijapur and the other in Sewari forest	...	...	...	"	104	3 3

#### **Section B. Fuel and Fodder Reserves.**

77. Sowings were made in all the reserves in various ways; in the Jorr and hill game preserves at Jodhpur Seeds of Babul, Khejra and Kumath were spread broad cast in specially allowed cultivated fields and in pits on the banks of Nadees and Nallaahs. At Kailana and Chopasani about a hundred 1 to 2 years potted plants from nurseries were put out. Of these, about 50 per cent are doing well, without irrigation.

78. At the instance of the J. B. Railway, a new plantation about 9.64 acres in area was formed at Balotra Station on Pachpadra Salt mines Branch to prevent recurring encroachments of the Railway precincts by the shifting sands 206 plants from Jodhpur nurseries were put out, and Babul, Khejra, Anwal, Atriplex &c. were sown broad cast. Out of these almost 90 per cent of the former and pretty over a thousand seedlings of the latter operations were found to be doing well.

The Department's enterprise in the fixation of the shifting sands along the banks of Luni river here and at Tilwara are worthy of careful study and adoption on an extensive scale, full of hopes and relief as they appear in an exceedingly encouraging degree, when we go through the dense

shade of a thicket of high forest of the old *Babul* and *Khejra* plantations over the once loose shifting sands that once threatened the very existence of the otherwise prosperous town and Ry. station of Balotra one of the trade centres of Western Marwar, shewing the wonderful possibility of tree culture even in the so-called notoriously unaccommodating climate of the desert.

79. The Shikarkhana areas round about Jodhpur continued to be looked after by this Department as a part of the Jorr. A great saving extending over thousands of rupees was effected in the keep and feed of Sardar Risala Imperial service cavalry horses by allowing them, free grazing and grass and Pala cutting despite the fact that large quantities of grass and fodder are wasted away by the unmethodical interference by Shikarkhana and Risala subordinates in the matter of utilisation of the products of these areas by directly allowing grazing, grass and Pala cutting, &c.

80. The finance stood as follows:—

			1914-15		1915-16.
Revenue	...	...	3,509	5 6	1,008 9 3
Expenditure	...	...	2,174	13 3	1,971 5 9
Surplus	...	...	1,421	8 3	Deficit. 962 12 6

### Section C Arboriculture.

#### A At Capital.

81. The old roadside avenues and plantations were maintained using 5,010 plants in the filling up of gaps.

82. New works of the year consisted of:—

1. Planting 350 shade trees and strongly fencing all round for a length of 189 chains the old race course at His Highness's Palace cost Rs. 737-13-3.
2. Double avenue-raising with 100 plants along the new branch of the Mahamander town Road.
3. Formation of 2 *Mahua*, *Jaman* &c, fruit plantations at Jodha squadron well and Chansukh Bera containing 2,564 plants. At the latter place Rohira (Marwar Teak), spineless Cactus, Aonla, &c, forest crops are also being raised, enlarging the nursery into a forest Experimental Ground.
4. Formation and development of excellent small economic Flowers and fruit orchards at Paota and Revenue offices, containing 700 plants.
5. Raising avenue of 55 plants along the Taparion-ka-talao branch of Takhatsagar road.

83. The system of raising tree topes and groves at selected localities of public utility such as bathing ghats, burial grounds, sacred places &c, was further developed by combined State-aided and private charity methods with a further planting of 127 trees issued free.

84. The reboisement of the entirely denuded Chhitar hillock was continued by adding 1000 nursery plants and large quantities of suitable seeds dibbled or seraped in; and in consequence the aggregate number of artificially raised plants has risen to 2000. Of these in order of merit *Prosopis juliflora*, Anwal, *Cryptostegia grandiflora*, Babul, Kumath, Neem, Goondi, Rohira and Jal have grown well besides many a other species that are fairly struggling their way through to cover this quite naked sheet rock hill.

85. The total number of plants in the nurseries and avenue plantations were 10924 and 15840 respectively against 15893 and 17348 last year; of these, 2196 did receive watering 4308 plants died of drought and wind falls; 1433 were issued to Arboriculture and other plantations in Districts leaving 26764 plants in hand at the close of the year.

86. <sup>46</sup>Rs. were realised from sale of 510 plants and Rs. <sup>15</sup>from windfalls wood at Jodhpur.

87. The following wells worked for nursery and other arboricultural purposes:—

1. Chensukh-ka- Bera for nursery and plantations.
2. Col: Loch's well for nursery and watering facilities to Railway and Public.
3. Jodha squadron for nursery and irrigation of road side planting
4. Shri Summair School well for irrigation of road side planting and public purposes.
5. A small nursery was also maintained at Paota and Chitter hill tank.

88. The Biyas-ki-Baori and Khema-ka-kua wells, were as usual worked for watering pigs, City cattle and public, on behalf of Dharampura and Shikarkhana Departments @ a cost of Rs. 181/11 and Rs. 518/6 respectively.

89. 100 plants were added to the plantation of shade trees on the Tilwara Cattle Fair ground on the much exposed and sandy banks of Luni river, making a total of 200 plants cost Rs. 216.

90. Plants raised by State-aided public charity at Samdari station of J. B. Ry. are now well established and independent of watering.

91. The Arboriculture at Summairpur was maintained in a technical form suited to the requirements of the Turkish Prisoners of War Camp there at a cost of Rs. 835-6-6, for 8,976 plants.

Falna Bali Road was further extended and had 700 plants on it cost Rs. 321-3-6. Out of all our arboriculture avenues in Marwar it is only here that Mango and Mahua fruit species have fared well and a complete success is anticipated.

92. Haripur station - Raipur town roadside plants were supervised and gaps filled up further extension was made on its western branch. The Raipur Thikana Kamdar Lala Shiv Ballabh Kayasth is very enthusiastic about it and is a regular help to the enterprise. A Farm and nursery to freely supply fruit plants to cultivators is also being formed there cost Rs. 135-10-0 for 724 plants.

93. Barmer, Pali and Sardarsamand roadside &c, planting were suitably maintained.

94. The Scindia Chhatri (Devasthan) orchard at Taosar (Nagore) was maintained, cost Rs 615-9-6 for 500 plants reared.

95. Merta nursery was continued. A plantation of 125 suitable fruit saplings is formed in the old abandoned attached garden. About 100 plants were distributed free to cultivators and others cost Rs. 117-0-0.

96. A new roadside planting was made at Saran. About 150 plants being put out.

97. The revenue came to Rs. 1,647-11-6 the expenditure to Rs. 15,116-12-9 against Rs. 1,800-5-9. and Rs. 16,280-12-6 respectively last year.

			Rs.	A.	P.
Forester	...	...	753	8	0
Malis and Chokidars	...	...	4,316	8	6
Bhisties and Watermen	...	...	4,551	12	3
Sagris	...	...	502	8	9
Grass and corn	...	...	2,033	10	3
Planting	...	...	1,929	13	3
Fencing	...	...	276	8	6
Tools	...	...	57	13	3
Mal and Ghirlics...	...	...	183	14	0
Miscellaneous	...	...	414	2	0
Polo ground	...	...	96	10	0
Total	...	...	15,116	12	9

#### (D) Experimental Farm.

98. The proposed Agricultural and Horticultural farm at Jagat-sagar Jhalra Jodhpur, was energetically and skilfully carried out and much foresight, hard labour, judicious outlay and exacting perseverance was involved in it, the farm being the first of its kind in Marwar much of the future agricultural improvement depending upon its successful working, which has, of course been placed upon a sound footing by providing the preliminary requisite condition of soil preparation, irrigation, water supply, accomodation for staff, machinery, planting materials &c. as detailed below

at an aggregate cost of Rs. 18,851-11-9 charged to famine head, the operations being carried out as a Famine Relief measure in the city.

	Rs.	a.	p.
1. Levelling the badly undulating ground covered with high mounds of undesirable debris from old well stepped [Jhalra] excavations and shifting sands and irregularly cut by water flows ... ..	4,449	5	4
2. Laying out of Kankar metalled road over 2857 ft. in length ... ..	1,922	10	0
3.     ))     Kutchra road and paths 2073 ft in length ... ..	included in 1		
4. Division of Jagat Sagar tank into 2 parts, upper and lower; and improvement of the whole ... ..	Do.		
5. Provision of over-flow water sluices, irrigation canals, reservoirs, drainage &c. ... ..	5,167	10	5
6. Improvement of Jhalras and wells ... ..	1,033	14	6
7. Machinery, tools &c ... ..	132	4	9
8. Accommodation for staff, sericulture house &c. ... ..	1,200	1	6
9. Protecting wall, fencing, gates &c. ... ..	2,001	0	6
10. Utilisation of stone quarries pits for storage of sweet [or rain] water with water ducts and lifts &c ... ..	256	8	6
11. Spreading of tank silt—a veritable highly mixed compost manure over part of the farm area under rich or heavy cropping ... ..	1,048	2	3
12. Silo, cattle sheds &c. ... ..	131	3	6
13. Miscellaneous ... ..	1,508	14	5

Besides the above, the Forest nursery and orchard there were amalgamated with it, and under the most favourable rainy season a large number of fruit and economic species were added making a total of 5,642 plants and 15 acres under silage crops and vegetables &c. indeed a good start.

#### (E) Jagir Forests.

99. The Jagir Forests continued to be looked after by the Department on the principles laid down in Para 107 of the Report of 1913-14.

##### A. Class — State supervision free.

		1914—15.	1915—16.
Raipur	{ Revenue ... ..	4,885 13 9	3,047 12 0
	{ Expenditure ... ..	1,102 3 6	1,313 1 6
Ghanerao	{ Revenue ... ..	1,320 8 6	729 10 3
	{ Expenditure ... ..	286 4 0	394 7 3

##### B. Class,—Anna share system, established shares realised.

Bar	{ Revenue ... ..	129 0 0	99 14 0
	{ Expenditure ... ..	43 0 6	41 10 6
Barantia	{ Revenue ... ..	288 0 6	19 15 6
	{ Expenditure ... ..	117 6 9	103 7 0
Babra	{ Revenue ... ..	228 7 6	20 6 5
	{ Expenditure ... ..	107 13 3	103 0 0
Somel	{ Revenue ... ..	351 5 0	20 5 0
	{ Expenditure ... ..	115 0 9	163 1 0

Decrease in revenue due to famine and grazing concession.

*C. Class.—Net surplus payment lease system.*

Farbatsar Range forest.	Revenue ...	...	1,271 9 6	649 8 0
	Expenditure...	...	508 10 0	420 14 3

Net paid to Banwal Jagirdars Rs. 71-11-9 and to Mayopur Jagirdar Rs. 31-2-0 and the others are not paying.

*D. Class.—Provisional Khalsa management,*

10. Jagir forests of Uchmat, Chekhlan, Dantlawas, Puran, Doira, Rajikawas, Paharpura, Gungapura, Khandadeval and Basra and 3 Mushtarka (joint) areas of Savidhar ( $\frac{2}{5}$  Jagir and  $\frac{3}{5}$  Khalsa), Chitrori ( $\frac{1}{2}$  Jagir and  $\frac{1}{2}$  Khalsa), Sheogarh (half by half), were managed by the Department yielding revenue as follows:—

			1914—15.	1915—16.
Revenue	...	...	2,124 8 0	1,873 13 0

The expenditure being included in Khalsa figures of the Range.

JALORE.

6. Jagir areas of Kolar, Meda, Pandegaron, Chiparwarra, Dhaula and Mailawas were also looked after by the Forest Department yielding Rs. 253-4-9 revenue against Rs. 287-12-9 of last year the expenditure being included in Khalsa figures of the Range.

The Forest of Mailawas, Dhaula and Chiparwarra in Jalore and Dantlawas, Paharpura, Puran in Jaswantpura shew poor results owing to apathy of their foresters. The burden of management falls thus upon the Khalsa forest income which is kindly allowed by the Gracious Darbar for the improvement of these areas and recompiment of losses in future directly and indirectly.

F. GEOLOGY AND MINING.

100. The Wolfram mines in the Renwat hills near Degana junction (J. B. Ry.) were continuously worked by the Br. syndicate divided into 2 parties, Messrs. Rolfe, Morris and Pearson, and Messrs. Rice and Pearson of Calcutta; 43 tons 2 cwt. 3 qrs. 23 lbs. of dressed ore having been removed from the beginning, i. e., dated 23-3-1915 up to end of September 1916; royalties, @  $7\frac{1}{2}$  per cent amounting to Rs. 6,613-1 on 25 tons 0 cwts, 1 qrs, 18½ lbs. of the first shipment having been recovered. The mineral was supplied to the Munition Department of the Home Government, and has proved to be one of the richest, the highest per centage of Tungstic acid being 72.35 as per Government Expert's report dated 17-2-1916.

The ore has been turning out richer both in per centage of Tungstic acid contents and yield from rock bodies on deeper digging. The old debris of rock disintegration at the foot of the hills have been found to be sufficiently impregnated with wolfram dust easily exploitable by vaning and panning process of ordinary hand labour, proving very profitable to the syndicate.

The Graphite ore deposits in Sojat and Jetaran Parganas having been further investigated, gave encouraging results in that a new deposit near Hirawas is discovered, which gave 31.34 per cent pure Graphite of good

quality, even in the surface stuff, as per analysis by P. Suraj Prakash M. A., Principal Jaswant College. Samples were distributed to various markets and firms and purchasers are coming forward.

The new coloured marble quarries at Bar and Raipur have been worked by local contractors under departmental care. Thus, besides saving the initial outlay on experimental working Rs. 211-3-9, have been collected as a net income on account of royalty, up to the end of the year.

Selenite, Gypsum, red and yellow ochres, cabalti-ferrous maganese, stealite &c., are being worked departmentally for sampling or experimental purposes, of course, with encouraging results. They are all being visited by prospectors, miners, &c., and samples and data statistics are being largely advertised and gathered.

The finance is hopeful and stands as follows, although this is the first year of the separate working of the needed interprise;—

Revenue	...	...	Rs. 7,001	0	0
Expenditure	...	...	Rs. 1,283	9	1

#### ( G ) FORESTS INDUSTRIES.

101. The Marwar Forest Timber Factory continued to use new and old indigenous timbers hitherto badly neglected worth Rs. 480 of these salar (*Boswellia serrata*), Gol (*Odina Wodier*), Kanaj (*Ulmus integrifolia*), Khirni (*Wrightea tinctoria*) have stood all sorts of tests very well and are becoming established in the once badly prejudiced market. The Factory turned out furniture of local and foreign wood mixed of the value of Rs. 16,141/- the capital involved at present being worth Rs. 3,313/-. Other industries such as Jodhpur porcelain and improved Pottery using local ingredients, the Bagri Lacquer Work, the Jaitaran Rohira wood carving &c., have further developed under increased demands from outside markets and encouragement by local stationery and Karkhanajats departments of the State. The Marwar Industrial Products Stall at Jodhpur Railway station was maintained throughout to popularise the local manufactures; this requires improvement, and organisation still.

#### ( H ) FAMINE RELIEF OPERATIONS.

102. In order to find congenial relief in situ for the Forests villagers, rather novel and generally useful works, all more or less, tending towards the mitigation of future famine effects directly or indirectly were proposed and satisfactorily carried out by the Forest Staff in addition to their other rather combersome duties which become the more arduous in times of scarcity. The various works, their nature, cost, and utility, have already been received in this report in suitable places and need no repetition. The aggregate expenditure incurred under this head was Rs. 49,448 compared with the estimate of Rs. 52,200.

103. Besides conducting on behalf of the famine Department the above stated Relief works, the Department had more important and hard duties to perform and valuable provisions to make for the direct or indirect

relief of the extraordinary large number of starving cattle and badly afflicted people of the vicinity and distant places. Before full realisation of the impending famine conditions, a certain amount of concession and licences were already granted to the public, especially rightholders in respect of extension of grazing periods, utilisation of grass &c. But from the commencement of the year under report, the famine manifested itself in all its horrible forms and effects and the following concessions were granted to provide immediate relief:—

1. Free grazing of rightholders and outsiders cattle all over the reserved areas. Rs. 133/- + 31936/- = 32069/- + 117/- = 32186/-.
2. Admission of immediately neighbouring foreign cattle on nominal fees. Rs. 22,601/-.
3. Free exploitation of green leaf fodder at great sacrifice of dearly preserved forest vegetation; the ignorant and selfish grazier or exploiter for the market, hacking down fine trunks and boughs for a bunch of leaves in some cases and heavy and repeated lopping being practised everywhere. Rs. 2,494/- + 8,000/- = 10,494/- + 113/- = 10,607/-
4. Free exploitation of grass and dead and fallen leaves &c., new and old, dry faggot wood, edible fruits, barks &c., for household use or marketing to provide means of livelihood to the forest villagers, all castes and classes from the highest citizen to the forest Bhil did avail of this concession, the forests being swept clean of all available stuff. Rs. 4,002/- + 68/- = 4,070/-.
5. Free and latter on reduced rate grazing of sheep in forests, the much contested and injurious concession granted to hitherto reserved areas for the first time in the history of Forest conservancy here Rs. 2000/-.
6. Opening of Forests for timber exploitation on market rates by forest miles on Permit system Rs. 1000/-.
7. Free exploitation of Babul leaves and pods for fodder, Dhak leaves flowers, &c., Rs., 2000.

Thus the Department suffered a direct loss of Rs. 74,123 approximately besides the heavy and long lasting injury done to growing stock. In other words the Raiyats have been timely and properly supported by Forest to the extent of Rs. 74,123/- which would have been necessitated for purchase of so much more fodder from foreign markets at enormous costs and inconveniences and for Taccavi advances and employment of unsuited labour on Relief works and much of this money would surely have been spent from Darbar Treasury adding to the already heavy Famine Budget.

Thus, the repeated experience of the past that has been very actually felt this year has proved beyond doubt to the public that properly reserved forests are an infallible natural accumulated store of reserve materials in kind



such as, green and dry grass and leaf fodder, edible fruits, seeds, barks &c., that could dearly or hardly be had for money or love, for the sustenance of the starving men and cattle during scarcity times, besides affording in their lopping, ~~following~~ or exploitation to thousands, ready and congenial employment and means of pauper's trade or better called means to eke out bare livelihood when capital and credit <sup>had</sup> field crops and domestic engagements and industrial pursuit have failed to bring relief; so much so that the wilderness of the jungles in such times, transforms into lively scenes of wild business, where thousands of men and women, young and old, are found, even in the dark hours of the night and scorching midday sun, amidst the awful dens of wild animals and inaccessible ravines, ridges, &c., daily bringing down from our hill forests, streams of these life supporting materials worth Lacs, into our village marts and thereby bringing maunds of silver into destitute coffers of the needy and the poor diverting the Silver current back towards Marwar.

It would be needless to say that without Forest conservancy these very hills would have yielded instead. at such times, earth, gravel and stones only.



## APPENDICES.

## ANNUAL FORM No. 46.

Forest Department, Marwar State. Area of Forests, for the year 1915-16.

Name of Division.	Name of Range.	Name of Paragana.	Name of Forest.	Area reserved First.		Area reserved during this year.	Area destroyed this year.	Net Area.		Order number.	Remarks.
				Acres.	Miles.			Acres.	Miles.		
			<b>Reserved Forests.</b>								
			<i>Khalsai:—</i>								
	Godwar	Bali and Desuri	Nana to Bagol	1,24,230	194.11	...	...	1,24,230	194.11	...	
	Sojat	Desuri, Sojat and Jaitaran	Kot to Depawas	42,082	65.75	...	...	42,085	65.75	...	
	Parbatsar	Parbatsar	<i>Jogir:—</i> Pi to Bidlad	7,360	11.50	...	...	7,360	11.50	...	
			<i>Khalsai:—</i> Bar $\frac{1}{2}$ ...	240	.37	...	...	240	.37	...	
	Jaitaran	Jaitaran Merta & Co....	<i>Jagir:—</i> $\frac{1}{2}$ Bar to Somel	4,080	6.37	...	...	4,080	6.37	...	
	Raipur	Jaitaran	Kalap to Giri	8,320	13.0	...	...	8,320	13.0	...	
	Ghanerao	Desuri	Ghanerao	3,277	5.12	...	...	3,277	5.12	...	
		Total Reserved forest		1,89,589	296.22	...	...	1,89,589	296.22	...	

Eastern Division.



## ANNUAL FORM No. 46.—Concluded.

## Forest Department, Marwar State. Area of Forests for the year 1915-16.

Name of Division.	Name of Range.	Name of Pargana.	Name of Forest.	AREA RESERVED FIRST.		Area reserved during this year.	Area disforested this year.	NET AREA.		Order number.	Remarks.
				Acrea.	Miles.			Acrea.	Miles.		
Jalore	...	Jalore ...	<i>Khalsas:</i> — Jalore khals	...	...	...	...	8,832	13.80	...	
			Letan...	...	...	...	...				
			Rajanwari	...	...	...	...				
Siwani	...	Siwani...	<i>Jagir:</i> — Kolar	...	...	...	...	7,168	11.20	...	
			Pijipurā	...	...	...	...				
			Tarwā	...	...	...	...				
			Pandigarān to Dhawāh.	...	...	...	...				
			<i>Khalsas:</i> — Piplan + Sela + Gndhānāl	1,032 867 1,058	4.62	...	...	1,032 867 1,058	4.62	...	
			<i>Jagir:</i> — Senar to Telwārā	22 197	34.69	...	...	22 197	34.69	...	
			Dharuā	197	.30	...	...	197	.30	...	
			Mohari	548	.86	...	...	548	.86	...	
			Ahlānā	18	.3	...	...	18	.3	...	
			Total Reserved Forests...	60,988	109.83	...	...	60,988	109.83	...	

Jaswantpura ...	Jaswantpura ...	Khalasa:— Ohitri... Sheoradh & Savihar &	Unclassed Forests.		...	...	...
			250	39			
Jalore ...	Jalore ...	Jagir:— Gungapura to Ropi ...	640	1.0	...	...	...
Siwani ...	Siwani to Pachpadra.	Jagir:— Bhagli ...	40	.06	...	...	...
		Khalasa:— Asotr ... Khokharlai Siwani Khia	146 44 144	.52	...	...	...
		Jagir:— Hinglaj ... Kulp ... Thapna to Lalani	1,307 990 4,066	9.94	...	...	...
		Luni Badmer line F. F. R.	5,312	8.30	...	...	...
	Total	Unclassed Forests	12,939	20.21	...	...	...
	TOTAL WESTERN DIVISION		82,927	129.54	...	...	...
Jodhpur ...	Jodhpur	.....	...	...	...	...	...
Do.	Do.	Jodhpur ...	7,273	11.37	...	...	...
		Gudha Bishuoyan	400	.62	...	...	...
	Total	Direction Division	7,673	11.99	...	...	...
	GRAND TOTAL	{ Reserved Forests Unclassed Forests	2,59,577 26,826.8	405.55 41.91	...	...	...
	GREAT GRAND TOTAL		2,86,403.8	447.46	...	...	...

Forest Department, Marwar State Register of Breaches of Forest Rules during the year 1915-16.

Forest Range & Civil Pargana.	Cases pending from 1914-15.	NEW CASES OF THE YEAR.						Total cases.	DISPOSED OF DURING THE YEAR.						Remarks.
		Injury to Forest by fire.	Unauthorized felling of wood and minor produce	Grazing without permission or in the tracts in which grazing is prohibited.	Other offences.	Total new cases during the year	Conviction.		Acquittals.		Total.				
							Cases.		Persons.	Cases.	Persons.	Cases.	Persons.		
A.—Cases tried by Magistrates.	4	...	...	5	...	5	9	6	12	...	6	12	3	Cases pending on 1st Octo-ber 1917.	
Jalore ...	...	...	...	...	...	...	...	...	...	...	...	...	...		
Jaswantpura ...	1	...	...	...	...	...	1	...	...	1	1	1	...		
Jaitaran (Raipur) ...	...	...	1	2	3	3	...	...	...	...	...	...	3		
Total	5	...	...	6	2	8	13	6	12	1	7	13	6		
B.—Cases compounded by forest officials.	...	...	...	...	...	...	...	...	...	...	...	...	...		
Bali ...	...	...	11	34	48	93	93	93	169	...	93	169	...		
Desnri ...	...	...	15	29	55	99	99	99	217	...	99	217	...		
Sojat ...	...	...	8	43	56	107	107	107	215	...	107	215	...		
Siwana ...	...	...	8	22	16	46	46	46	185	...	46	185	...		
Jalore ...	...	...	157	19	5	181	181	181	233	...	181	233	...		
Jaswantpura ...	...	...	9	6	1	16	16	13	13	...	13	13	3		
Parbatsar ...	...	...	11	44	...	55	55	55	63	...	55	65	...		
Pali ...	...	...	5	1	...	6	6	6	9	...	6	9	...		
Luni Badmer ...	...	...	...	...	1	1	1	1	1	...	...	...	...		
Raipur ...	...	...	8	Jagir. 1	23	32	32	32	69	...	32	69	...		
Ghanasao ...	...	...	...	...	...	...	...	...	...	...	...	...	...		
Jaitaran ...	...	...	2	...	2	4	4	4	6	...	4	6	...		
Total	...	...	234	199	207	640	640	637	1,182	...	637	1,182	3		
Grand total	5	...	234	205	209	646	653	643	1,194	1	644	1,195	9		

## Annual Form No. 53.

Forest Department, Area of Forest tracts protected from fire during the year 1915-16.

RANGE.	FOREST TRACTS.	Year in which protection commenced	Area actually protected during the last dry season.	Area attempted to be protected.	Failures.	Actually protected during the year.	Cent.	REMARKS.
		<b>Khalsa.</b>						
Eastern Division	Bali ...	1891	...	...	...	...	...	...
	Desuri ...	1891	1,65,016	1,66,412	1,300	1,65,112	7 0	0
	Sojat ...	1891	...	...	...	...	...	...
	Piploon Sela Gudhaal ...	1898	2,957	2,957	...	2,957	...	...
Western Division	Jalore ...	1898	8,832	8,832	...	8,832	...	...
	Jaswantpura, Soonda and Dorra black ...	1898	8,086	8,086	...	8,086	...	...
	TOTAL	...	1,84,891	1,86,287	1,300	1,84,987	7 0	0
		<b>Jagir.</b>						
Eastern Division and Ghanerao	Ghanerao ...	1895	3,277	3,277	...	3,277	...	...
	Pi, Bassi, Danwal, Mayapur, Kalyatra and Bidlad.	1897	7,360	7,360	...	7,360	...	...
	Kalib to Gird ...	1894	8,320	8,320	...	8,320	...	...
	Bar, Barantia, Dabra and Somel ...	1896	4,080	4,080	...	4,080	...	...
Direction Division	Mokalsar, Ramnia, Mewri, Gungrot and etc.	1908	22,960	22,960	...	22,960	...	...
	Aichrana and Rojha ...	1909	7,168	7,168	...	7,168	...	...
	Soonda and Dorra...	1909	19,885	19,885	...	19,885	...	...
	TOTAL	...	73,050	73,050	...	73,050	...	...
Western Division	Jalore ...	...	2,57,941	2,59,337	1,300	2,55,037	7 0	0
	Jaswantpura ...	...	...	...	...	...	...	...
	GRAND TOTAL	...	2,57,941	2,59,337	1,300	2,55,037	7 0	0



Annual Form No. 57.

Forest Department Marwar State. Outturn (in cubic feet) of Timber and fuel for the year 1915-16.

RANGE.	TIMBER IN ROUND LOGS					TIMBER IN ROUND POLES					SAWAN SQUARED TIMBER.					MISCELLANEOUS.					FUEL.					REMARKS.			
	Raj Agency	Purchasers	Free grants.	Rightholders.	Total.	Raj Agency	Purchasers.	Free grants.	Rightholders.	Total.	Raj Agency.	Purchasers.	Free Grants.	Rightholders.	Total.	Raj Agency.	Purchasers.	Free grants.	Rightholders.	Total.	Raj Agency.	Purchasers.	Free grants.	Rightholders.	Total.		Grand Total.		
Eastern Division	3,616	948	...	22,147	30,711	2,085	770	...	294	3,149	3,294	1,219	...	745	5,258	380	250	...	1,781	2,411	1,15,184	20,811	...	...	27,580	1,63,575	2,05,101		
	186	591	...	365	1,142	2,077	109	...	443	2,659	733	8	...	328	1,069	15	43	...	1,411	1,857	50,300	28,531	...	...	3,461	82,292	88,089		
	3,021	90	...	490	3,601	2,76	38	...	1,151	3,898	771	...	...	323	1,091	168	491	...	4,971	5,033	1,29,795	84,275	...	...	75	2,14,115	2,28,371		
	...	...	...	...	...	615	181	...	293	1,119	...	...	...	...	...	...	...	...	...	...	...	580	1,498	1,062	...	3,140	4,259		
	...	...	...	...	...	977	436	...	417	1,770	175	3	...	...	...	...	...	...	...	...	...	11,077	90	...	...	11,972	11,920		
Western Division	...	...	...	...	...	2,622	2,330	...	1,430	6,381	...	...	...	...	...	...	...	...	...	...	...	1,265	2,598	...	795	4,658	11,040		
	...	...	...	...	...	...	10	...	...	10	...	...	...	...	...	...	...	...	...	...	3	...	3,435	...	...	...	3,435	3,448	
Jelara Division	...	...	...	...	...	...	...	...	54	54	...	...	...	31	34	...	...	...	...	17	19	...	1,110	...	...	...	1,110	1,317	
	6,823	1,629	...	27,104	35,556	11,041	3,874	...	4,095	19,011	4,973	1,230	...	1,430	7,633	863	1,178	...	8,180	9,021	3,08,196	1,13,158	1,064	...	31,911	4,84,327	5,56,448		
Jelara Division	...	...	...	...	...	...	...	...	JAGIR.					...	...	...	...	...	...	...	...	...	...	...	...	...	...		
	...	45	...	372	417	128	87	...	363	575	...	1	...	328	329	...	196	...	...	20	216	11,458	2,355	...	6,000	19,813	21,350		
	...	183	62	397	552	...	403	112	177	692	...	157	23	37	217	...	30	14	192	121	...	...	1,475	775	1,275	3,525	5,122		
	...	...	...	...	...	...	35	...	45	70	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	118	188	
	...	...	...	...	...	...	178	...	259	437	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	437	
GRAND TOTAL	...	228	62	679	969	128	693	112	841	1,774	...	158	23	365	546	...	216	14	212	352	...	11,458	5,158	775	7,275	4,666	28,307		

## ANNUAL FORM NO. 58.

Forest Department, Marwar State. Outturn of Minor produce during the year 1915-16.

Range.	Description.	RAJ AGENCY.		PUR HUSERS.		FREE GRANTS.		RIGHT HOLDERS.				Total.		REMARKS.			
		Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	AT REDUCED RATES.		FREE.		TOTAL.					
								Quantity.	Value.	Quantity.	Value.	Quantity.	Value.				
B. L. I.	Bamboos	10,670	75	10,254	100	...	...	...	...	...	...	...	...	21,924	310		
	Grass cart loads	...	...	128	47	...	...	...	...	...	...	...	...	127	47		
	Grass head loads	...	...	517	...	21,150	335	...	...	20,749	324	20,749	...	167	...		
	Grazing cattle	...	...	4,453	655	32,921	16,133	...	...	...	...	...	...	37,634	17,088		
	Honey, wax and hides contract	...	...	...	2,437	...	...	...	...	...	...	...	...	...	2,487		...
	Pala cart loads	...	...	280	155	...	...	...	...	...	...	...	...	...	155		...
	Pala head loads	...	...	133	17	194	12	...	...	...	...	...	...	...	31		...
	Stone cart loads	...	...	148	17	...	...	...	...	...	...	...	...	...	17		...
	Pala leaves H. L.	...	...	243	8	16,722	523	...	...	15,249	476	15,248	...	148	...		
	Gum, fruits and leaves	...	...	51	58	45,549	771	...	...	...	...	...	...	32,213	1,097		
	Mohra (seeds)	...	...	...	...	...	...	...	...	...	...	...	...	45,601	829		...
	Mohra H. L.	...	...	1,304	60	...	...	...	...	...	...	...	...	21,307	1		...
	Miscellaneous	...	...	...	...	...	...	...	...	...	...	...	...	1,357	140		...
Total		...	833	...	3,707	...	18,971	...	...	...	800	...	...	23,414	5		
Desert.	Bamboos	...	...	1,620	61	...	...	...	...	...	...	...	...	7,369	315		
	Grass carts	...	...	19	10	...	...	...	...	...	...	...	...	19	10		
	Grass (H. L.)	...	...	...	...	...	...	...	...	...	...	...	...	66,733	1,040		
	Grass (H. L.)	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
	Grazing cattle	...	...	5,019	540	18,210	10,243	...	...	...	...	...	...	23,229	10,783		
	Lime (carts)	...	...	4	5	...	...	...	...	...	...	...	...	4	5		
	Stone (carts)	...	...	41	9	...	...	...	...	...	...	...	...	41	9		
	Thorn fences (carts)	...	...	11	4	...	...	...	...	...	...	...	...	14	4		
	Hides contract	...	...	...	500	...	...	...	...	...	...	...	...	...	500		...
	Pala (carts)	...	...	173	130	...	...	...	...	...	...	...	...	...	173		130
	Pala (H. L.)	...	...	184	53	...	...	...	...	...	...	...	...	...	23		...
	Pala (H. L.)	...	...	39	1	19,761	618	...	...	...	...	...	...	19,800	619		
	Arveja popri (contract)	...	...	...	64	...	...	...	...	...	...	...	...	...	68		...
	Honey (contract)	...	...	...	12	...	...	...	...	...	...	...	...	...	12		...
	Flowers (contract)	...	...	...	3	...	...	...	...	...	...	...	...	...	3		...
	Mohra (H. L.)	...	...	190	12	...	...	...	...	...	...	...	...	...	190		12
	Solar and Dhao leaves (H. L.)	...	...	...	...	23,567	517	...	...	...	...	...	...	23,567	517		
Total		...	250	...	1,378	...	11,378	...	4	...	1,040	...	...	14,030	...		

## Forest Department, Marwar State. Outturn of Minor produce during the year 1915-16.

Range.	Description.	RAJ AGENCY.		PURCHASERS		FREE GRANTS.		RIGHT HOLDERS.				TOTAL		REMARKS.
		Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	AT REDUCED RATES.	FREE	Quantity.	Value.	Quantity.	Value.	
Sole	Bamboos...	191	10	153	5	...	...	...	...	...	...	...	...	
	Grass (H. L.)	...	...	85	...	...	...	...	...	...	...	...	...	
	Grazing cattle	...	...	3,795	681	12,865	5,280	...	...	...	...	...	...	
	Honey, Wax and Hides contract	...	...	...	1,028	...	...	...	...	...	...	...	...	
	Pala (H. L.)	...	...	...	120	54	7	...	...	...	...	...	...	
	Stone (cart)	...	...	958	2	...	...	...	...	...	...	...	...	
	Pala leaves	...	...	88	3	7,260	225	...	...	...	...	...	...	
	Gum fruits &c.	...	...	174	117	46,127	74	...	...	...	...	...	...	
	Total	...	10	...	1,955	...	5,672	...	...	...	...	...	...	
	Bamboos...	506	23	322	11	...	...	...	...	...	...	...	...	
Sivani	Grass (H. L.)	...	...	601	9	...	...	...	...	...	...	...	...	
	Pala (cart)	...	...	14	7	...	...	...	...	...	...	...	...	
	Pala (H. L.)	...	...	90	6	...	...	...	...	...	...	...	...	
	Fruit, (H. L.)	...	...	19	1	...	...	...	...	...	...	...	...	
	Thoris (cart)	...	...	10	2	...	...	...	...	...	...	...	...	
	Kesaria flowers (H. L.)	...	...	11	1	...	...	...	...	...	...	...	...	
	Gum Gum (contract)	...	...	...	33	...	...	...	...	...	...	...	...	
	Grazing cattle	...	...	...	...	...	...	...	...	...	...	...	...	
	Pala leaves (H. L.)	...	...	...	104	...	...	...	...	...	...	...	...	
	Stone (cart)	...	...	1,253	78	...	...	...	...	...	...	...	...	
Sivani	Stone (cart)	...	...	21	5	...	...	...	...	...	...	...	...	
	Stone slab- (carte)	...	...	...	13	...	...	...	...	...	...	...	...	
	Hides contract	...	...	...	...	...	...	...	...	...	...	...	...	
	Total	...	23	...	260	...	...	...	...	...	...	...	...	
	Pala (H. L.)	...	...	175	22	...	...	...	...	...	...	...	...	
	Pala (cart)	...	...	4	3	...	...	...	...	...	...	...	...	
	Grazing cattle	...	...	...	...	...	...	...	...	...	...	...	...	
	Gum Gum carts	...	...	...	...	...	...	...	...	...	...	...	...	
	Stone (cart)	...	...	...	...	...	...	...	...	...	...	...	...	
	Fruit-cart	...	...	...	...	...	...	...	...	...	...	...	...	
Sivani	Hides cart	...	...	...	...	...	...	...	...	...	...	...	...	
	Dhan leaves	...	...	64	46	...	...	...	...	...	...	...	...	
	Total	...	...	...	210	...	...	...	...	...	...	...	...	
	Bamboos...	...	...	...	...	...	...	...	...	...	...	...	...	
	Grass (H. L.)	...	...	...	...	...	...	...	...	...	...	...	...	
	Grazing cattle	...	...	...	...	...	...	...	...	...	...	...	...	
	Honey, Wax and Hides contract	...	...	...	...	...	...	...	...	...	...	...	...	
	Pala (H. L.)	...	...	...	...	...	...	...	...	...	...	...	...	
	Stone (cart)	...	...	...	...	...	...	...	...	...	...	...	...	
	Pala leaves	...	...	...	...	...	...	...	...	...	...	...	...	

Realised Rs. 78/- only.

Part of contract for division for Rs. 70/-.

[illegible]

# ANNUAL FORM No. 53.—Concluded.

Forest Department, Marwar State. Outturn of Minor produce during the year 1915-16.

Range.	Description.	RAJ AGENCY.		PURCHASERS		FREE GRANTS		RIGHT HOLDERS						TOTAL.		REMARKS.
		Quantity.	Value	Quantity	Value.	Quantity	Value	AT REDUCED RATES		FREE.		TOTAL.		Quantity	Value	
								Quantity	Value	Quantity	Value.	Quantity	Value.			
Chunero.	Bamboos ..	..	..	29	7	22	6	16	2	..	..	16	2	67	15	
	Pala (cart loads) ..	..	..	9	7	20	15	8	4	..	..	8	4	37	26	
	Pala (head loads) ..	..	..	..	..	85	5	171	11	..	..	171	11	256	16	
	Stone (cart load) ..	..	..	893	28	..	..	..	..	..	..	..	..	893	28	
	Hide contract ..	..	..	..	81	..	..	..	..	..	..	..	..	..	81	
	Arveja contract ..	..	..	..	100	..	..	..	..	..	..	..	..	..	100	
	Bak (H L) ..	..	..	..	269	25	..	..	..	..	..	..	..	269	25	
	Miscellaneous ..	..	..	142	14	..	..	..	..	..	..	..	..	142	14	
	Pala head loads ..	..	..	75	9	..	..	..	..	..	..	..	..	75	9	
	Miscellaneous ..	..	..	38	10	..	..	..	..	..	..	..	..	33	10	
Jotaran Division.	..	..	..	115	3	529	8	..	..	..	..	..	..	614	11	
	Dhao leaves (H. L) ..	..	..	..	..	..	..	..	..	..	..	..	..	302	19	
Jalore ..	Stone carts ..	..	..	302	19	..	..	..	..	..	..	..	..	..	51	
	Honey and hide contract ..	..	..	..	51	..	..	..	..	..	..	..	..	..	3	
Jaswantpura.	Stones ..	..	..	4	3	..	..	..	..	..	..	..	..	4	..	
	Pala donkey loads ..	..	..	18	1	..	..	..	..	..	..	..	..	18	1	
	Palas (H. L) ..	..	..	..	..	..	..	..	..	..	..	..	..	5,011	16	
	Pala camel loads ..	..	..	..	..	..	..	..	..	..	..	..	..	290	12	
	Grass ..	..	..	..	..	..	..	..	..	..	..	..	..	709	11	
	Grazing ..	..	..	3,255	202	..	..	..	..	..	..	..	..	3,232	233	
	Bamboos...	..	..	4,493	104	..	..	..	..	..	..	..	..	4,493	104	
	Bamboos Sakaria (H. L.) ..	..	..	75	11	..	..	..	..	..	..	..	..	75	11	









ANNUAL FORM No. 59.—(Continued).

Forest Department Marwar State. Account of timber and other produce cut or collected by Raj Agency and brought to sale Depot or sold locally during the year 1915-16

Particulars.	Number or quantity.	Cubic feet	TOTAL OF EACH HEAD.		Particulars.	Number or quantity.	Cubic feet	TOTAL OF EACH HEAD.		Remarks.
			No or quantity.	Cubic feet.				No or quantity.	Cubic feet.	
<i>Jodhpur</i> —										
Pidhan	6				Dingar dhro	157				
Timchi	32				Kumit logs	86				
Kumal logs	17				Ins lath	17				
Mekhan	123				Lath Roy in	3				
Golva pieces	22				Maikhan	91				
Old Bonk	105				Goly's pieces	22				
Nim logs	3				Bank got	105				
			303		Salar Khirai logs	119				
			71187		Nim logs	3			1,472	
Total True Receipts					Luni Barua line					
II Gross Receipt					Goly	505				
Transfer from other depot.					Ka-jhi danda	93				
Depot jti	9138				Lothra Ins	1				
Jodhpur	3759				Singri khair	8				
Barmer line	600				" dhao	3				
			13407		Chokani pband	159				
GRAND TOTAL			13403		Hetan dhro	15				
					" shrich	10				
					Singri	3				
					Ins	82				
					Thobli	89				
					Barwa	27				
					Upla	3				
					Gangroo chitya	42				
					Khur logs	1			965	
					Total				64,039	
					Utilised by the Department.					
					<i>Bali Range</i> —					
					Thobli	123				
					Singri Sarash	3				
					" dhro	27				
					Lathra Ins	7				
					Ins	15				
					Upla	3				
					Dingar dhro	13				
					Dandi "	182				
					Goly	13				
					Kani	11				

Raj khadi	27	776	...	...
Maya	10		...	...
Musal khur	1		...	...
Pat dhao	1		...	...
Pawa danda	27		...	...
Paga	9		...	...
<i>Deuri Range:—</i>				
Golya	23		...	...
Danda dhao	417		...	...
Layan	89		...	...
Thodi	40		...	...
Musal khair	1		...	...
Rohan logs	8		...	...
Kurat logs	11		...	...
Dungai dhao	25		...	...
Singri "	147		...	...
Mayal	17		...	...
Ins	2		...	...
Upla	26	771	...	...
<i>Sajal Range:—</i>				
Ins	16		...	...
Upla	18		...	...
Kashi danda	15		...	...
Golya	13		...	...
Dungar dhao	114		...	...
Dunda "	663		...	...
Thodi	10		...	...
Pargulya dhao	32		...	...
Hawals	1		...	...
Mayal	1		...	...
Ridwan	1		...	...
Bakhi	1		...	...
Pardar	10		...	...
Hid dhao	2		...	...
Pargul dar	8		...	...
Kata	10	870	...	...
<i>Deori Range:—</i>				
Kant	31		...	...
Golya	2		...	...
Dungar dhao	30		...	...
Thodi	36		...	...
Parg	61		...	...
Dunda dhao	408		...	...
Mayal	1		...	...
Singri dhao	2		...	...
Pal dunda	21		...	...
Ins	6		...	...
Upla	33	672	...	...
Pawa dhar	40		...	...
<i>Sajal Range:—</i>				
Laj khadi	3		...	...
Laj dhao	83		...	...
Kash pitsa	...		...	...
Kash danda	454		...	...
Singri	89	647	...	...
Pardar logs	19		...	...

# ANNUAL FORM No. 59.—(Continued).

Forest Department Marwar State. Account of timber and other produce cut or collected by Raj Agency and brought to sale Depot or sold locally during the year 1915-6

Particulars.	Number or quantity	Cubic feet.	Total of each head.		Particulars.	Number or quantity.	Cubic feet.	Total of each head.		Remarks.
			No. or quantity.	Cubic feet.				No. or quantity.	Cubic feet.	
					<i>Jaswantpura Range:—</i>					
					Singri	20				
					Atwari	58				
					Pandua dbao	8				
					Panda "	137				
					Moyal	16		239		
					<i>Shiozara Range:—</i>					
					Garya	2				
					Upla	1		3		
					<i>Jodhpur Range:—</i>					
					Golya	65				
					Siliper	145		210		
					Struck off on account of shortage:—					
					Barmer line			4187		
					Rawata	15				
					Hal dhuo	4				
					Thoblyan	28				
					Singri	1				
					Golya	71				
					Upla	24				
					Isa	20				
					Kashidanda	76				
					Singri dbao	23				
					Upla latba	3				
					Thaubz	1				
					Hal khair	77				
					Chokani kana	145				
					Gangaroo chitva	110				
					Latha	6				
					Chokani palani	6				
					<i>Depot Jat Range:—</i>			551		
					Kani	1				
					Golya	134				
					Thobli	42				
					Paga	43				
					Danda	78				

Ins.	...	...	12	310
Sojat Pat	...	...	1	1
Jalore Range Fidan	...	...	55	55
Total True disposal				917
IL—GROSS DISPOSAL.				68,143
Bali Range	...	...	6037	
Desuri "	...	...	2,004	
Sojat "	...	...	5,466	
Total disposal				13,497
Balance at close of the year.				81,640
Bali	...	...		5,149
Desuri	...	...		2,967
Sojat	...	...		26,816
Depot Range	...	...		227
Siwana	...	...		2,191
Jalore	...	...		3,359
Jaswantpura	...	...		1,424
Jodhpur	...	...		4,216
Pali	...	...		293
Barmer line	...	...		4,326
				52,768
				134,408

## ANNUAL FORM No. 59. --(Continued)

Forest Dept., Marwar State. Account of timber and other produce cut or collected by Ray Agency and brought to sale Depot or sold locally during the year 1915-16

Particulars.	Number or quantity	Cubic feet	TOTAL OF EACH HEAD.		Particulars	Number or quantity.	Cubic feet.	TOTAL OF EACH HEAD.		Remarks.
			No or quantity.	Cubic feet.				No or quantity.	Cubic feet.	
	Mds. Srs. Ch.		Mds. Srs. Ch.					Mds. Srs. Ch.		
Balance at commencement of the year:--										
Dehuri Range "	6091 28 12				DISPOSAL:--					
Bali " "	18544 14 4				I--Timber Disposal, Removed by purchasers from Depots or sold locally.					
Bojati " "	37002 11 10				Bali Range "	426 35 0				
Jalore " "	28 17 8				Bojati " "	3335 " 0				
Siwana " "	294 1 12				Dehuri " "	215 38 12				
Pali " "	255 35 8				Jalore " "	4357 24 9				
Barnar Range, "	51 0 8				Siwana " "	140 31 0				
Jodhpur " "	10235 14 0				Barnar Range "	377 17 8				
			73.23 8 14		Barnar Range "	8 20 0				
RECEIPTS.					Dehuri " "	2035 0 0				
I--THRU, ...					Jodhpur " "	23927 0 8				
Dehuri " "	43192 16 8							77834 7 5		
Bali " "	19485 20 6				Struck off account of shortage					
Dehuri " "	40691 36 8				Bali " "	154 0 0				
Dehuri " "	1778 35 8				Bojati " "	240 0 0				
Jalore " "	112 13 8				Dehuri " "	1816 24 12				
Siwana " "	4431 3 0				Barnar Range "	42 20 8				
Jodhpur " "	715 10 0				Jodhpur " "	712 30 0				
Received from loan	87 27 8				Unaccounted for			2965 34 4		
Jodhpur " "	1200 15 0				Dehuri " "	211 10 0				
					Dehuri " "	1004 30 0				
II--GRASS RECEIPTS.										
Dehuri " "	23461 0 0				Total from depots			82016 1 9		
Jodhpur " "	40763 31 8				II--GRASS RECEIPTS.					
Depots jati "					Bojati " "	19014 4 0				
			249823 18 4		Bali " "	2934 30 4				
					Dehuri " "	18769 17 4				
					Depots jati "	22466 20 0				
					Total disposal			61254 31 8		
					Balance at close of the year			116240 33 1		
					Bojati " "	26135 5 4				
					Dehuri " "	12469 3 8				
					Bojati " "	27391 4 0				

Balance at Commencement of the year:—		Md. Sr. Ch.	
Ball Range	...	369	20 0
Desuri "	...	72	13 0
Sojat "	...	497	1 0
Jodhpur "	...	44	31 1
Pal "	...	11	4 2
Jaler "	...	2	30 0
<b>Total RECEIPTS.</b>		<b>910</b>	<b>19 14</b>
<b>I.—TRUE RECEIPTS.</b>			
Ball Range	...	486	30 0
Desuri "	...	250	18 12
Sojat "	...	179	5 0
Jodhpur "	...	21	6 0
<b>Total RECEIPTS.</b>		<b>936</b>	<b>53 12</b>
<b>II.—GROSS RECEIPTS.</b>			
Jodhpur	...	1749	2 4
Depots Jat	...	1910	34 0
<b>Total receipts</b>		<b>3659</b>	<b>36 4</b>
<b>Balance at commencement of the year.</b>			
Ball Range	...	10,808	
Desuri "	...	524	
Sojat "	...	25	
Palmer line	...	6,594	
Jaswantpura	...	2,476	
Jodhpur	...	101	
<b>Total RECEIPTS.</b>		<b>19,928</b>	
<b>Balance at commencement of the year.</b>			
Ball Range	...	10,808	
Desuri "	...	524	
Sojat "	...	25	
Palmer line	...	6,594	
Jaswantpura	...	2,476	
Jodhpur	...	101	
<b>Total RECEIPTS.</b>		<b>19,928</b>	



Balance at commencement of the year.		Balance at the close of the year.	
Desuri Range ...	308 20 0	Bali ...	1628 23 0
Siwana " ...	922 10 0	Sojat ...	24 30 0
Jawantpura Range ..	200 30 0	Depots ..	47 1 8
			1,700 14 8
			47,020 4 0
<b>DEPARTMENTAL GRASS.</b>			
<b>I—TRUE DISPOSAL.</b>			
Purchase from Depots.			
Desuri Range ...	83 20 0		
Siwana " ...	614 33 0		
Used by Department			
Jawantpura ...	161 0 0		
Struck off in account of shortage			
Siwana Range ...	0 17 8		
Jawantpura Range	39 30 0		
	.....		
Total disposal			899 20 8
Balance at close of the year.			
Desuri Range ...	215 0 0		
Siwana " ...	507 0 0		
			522 0 0
			1,431 20 8
<b>(OTHER PRODUCE). DISPOSALS.</b>			
<b>I—TRUE DISPOSALS</b>			
Purchase from depots.			
Jawantpura ...	21 35 9		
Sojat ...	1 20 0		
Jodhpur ...	2 3 8 1/2		
Depots ...	28 0 0		
Bali ...	No. 136		
Used by Department.			
Jawantpura ...	1 0 0		
Sojat ...	3 17 0		
Jodhpur ...	0 31 4 1/2		
Depots ...	34 5 6		
Bali ...	0 21 0		
	.....		
Total true disposal			93 13 12
			No. 136
<b>II—GRASS DISPOSALS.</b>			
Jawantpura ...	2 26 12		
Depots ...	0 10 0		
Bali ...	8 26 0		
	.....		
Total disposals			11 22 12
Balance at close of the year.			
Jawantpura ...	82 39 15		
Jodhpur ...	16 26 5 1/2		
Jodhpur ...	93 0 0		
Bali ...	1 24 0		
	No. 34		
			192 10 5 1/2
			No. 34
			297 6 13 1/2
			No. 170
<b>Balance at commencement of the year.</b>			
Jawantpura ...	90 3 12		
Sojat ...	160 12 4		
Jodhpur ...	638 7 1/2 0		
<b>I—TRUE RECEIPTS.</b>			
Bali Range ...	9 31 0		
Jawantpura Range	13 18 10		
Jodhpur ...	11 22 12		
Total receipts			
			39 34 10 1/2
			93 13 12
			No. 136
			11 22 12
			192 10 5 1/2
			No. 34
			297 6 13 1/2
			No. 170





# ANNUAL FORM NO. 61.—Continued.

Forest Department, Marwar State. Summary of Expenditure of different Ranges in Marwar Forest during 1915—16.

TENDER HEADS.	Sadar.	EASTERN DIVISION				WESTERN DIVISION.				DIRECTION DIVISION					Total	Remarks.
		General.	Bali.	Desuri.	Sojat.	General.	Sivana.	Jalore.	Jaswant- pura.	General.	Jodhpur.	Parbatsar.	Pali.	Batnocr.		
<b>A. Conservancy works.</b>																
<i>I.—Timber and other produce removed from the Forests by Raj Agency:—</i>																
(a) Timber ..	155 0 6	2445 6 10	516 1 9	832 5 0	...	...	157 8 0	74 6 3	169 7 6	...	255 2 9	...	177 13 11	23 8 3	...	4807 1 3
(b) Firewood & charcoal ..	2,120 14 3	8,750 13 0	1,885 6 0	9,662 0 6	...	...	123 11 3	23 10 6	314 4 0	...	3,083 12 6	...	73 1 0	1 0 0	...	25,008 2 0
(c) Bamboos ..	...	370 14 0	95 11 3	4 8 0	...	...	7 14 6	...	3 12 6	...	39 11 0	...	...	...	...	563 7 3
(d) Grass and minor produce ..	120 14 0	29 6 3	1 12 0	302 10 3	...	...	...	79 5 0	57 6 3	...	0 12 0	...	...	...	...	1009 4 9
<i>II.—Timber and other produce removed from the forests by purchasers consumers.</i>																
	472 13 6	...	0 4 0	5 10 0	14 7 0	...	...	...	...	...	...	0 4 6	...	...	...	493 7 0
<i>III.—Confiscated drift and waste wood ..</i>																
	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<i>IV.—Revenue from forests not managed by Raj:—</i>																
(a) Duty on foreign timber and other forest produce.	81 4 0	...	1 10 0	...	...	...	...	...	...	...	...	...	...	...	...	82 14 0
(b) Revenue from shared and private forests.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<i>V.—Revenue from cleared forests and payments to share holders in forests managed by Raj.</i>																
(a) Purchase of cattle	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
(b) Feed and keep of cattle	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
(c) Purchase of Stores Tools & plants.	138 4 0	56 1 6	30 11 6	52 1 0	...	...	7 7 6	18 8 0	1 14 0	...	...	3 8 0	12 2 0	1 0 0	...	321 9 6
<i>VI.—Communications and Buildings —</i>																
(a) Roads and Bridges	...	157 13 0	211 4 6	351 10 0	...	...	20 8 9	...	5 0 0	...	33 13 0	1 0 0	14 4 0	10 8 6	...	246 4 3
(b) Buildings	8 12 6	538 1 0	238 14 3	570 14 0	...	...	80 4 3	0 7 0	33 13 6	...	...	...	...	...	...	1,540 12 0
(c) Other works	...	18 5 0	...	73 5 0	...	...	...	...	...	...	...	...	...	...	...	91 10 0
<i>III.—Denarcation, Improvement and cultivation of Forests:—</i>																
(a) Demarcation	26 3 0	183 0 0	36 7 3	3 7 0	...	...	10 12 0	30 11 9	7 0 0	...	...	5 14 3	...	...	...	303 7 3
(b) Compensation of land	2,778 13 3	219 13 6	24 12 0	...	...	...	...	10 12 0	7 8 0	...	...	...	...	...	...	2,053 6 9
(c) Surveying & working plans...	1,608 13 6	467 5 0	0 4 0	32 0 0	...	...	...	...	...	...	49 8 6	...	...	...	...	2,176 3 0
(d) Sowing and planting	50 10 3	143 7 6	32 2 6	428 12 0	...	...	7 1 0	64 4 6	98 15 9	...	17 13 6	0 9 0	...	...	...	843 12 0
(e) Protection from fire	...	7 0 0	...	...	...	...	...	...	...	...	...	...	...	...	...	7 0 0
(f) Other works	...	0 4 0	...	...	...	...	...	...	...	...	...	...	...	...	...	0 4 0
<i>X.—Miscellaneous:—</i>																
(a) Refunds	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
(b) Law charges	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
(c) Other works	...	56 4 6	...	449 11 3	...	...	97 15 3	12 3 0	...	...	4 14 6	4 2 0	...	...	...	2,066 14 0
Total A. conservancy	8,936 2 3	12,431 7 1	3,060 14 0	12,778 15 3	...	...	573 3 3	314 8 0	771 1 6	16 3 0	4,385 7 9	15 5 9	276 4 11	36 0 9	...	44,538 9 6

Compensation paid to Jagirdars

## ANNUAL FORM NO. 61—Continued.

Forest Department, Marwar State. Summary of Expenditure of different Ranges in Marwar Forest during 1915-16.

BUDGET HEAD.	EASTERN DIVISION.				WESTERN DIVISION.				DIRECTION DIVISION.					Re- marks								
	Sadat.		Desuri.		Sojat.		General.		Siwana.		Jalore.		Jaswanipura.		General.	Jodhpur.	Parbatsar.	Pali.	Barmer.	Jaitaran.	TOTAL.	
	General.	Bali.	General.	Sojat.	General.	Siwana.	Jalore.	Jaswanipura.	General.	Siwana.	Jalore.	Jaswanipura.	General.									Jodhpur.
Brought forward Total A — B. ESTABLISHMENT.	8,936 2 3	13,434 7 1	3,080 14 0	12,778 15 3	...	513 3 3	314 8 0	771 1 6	16 3 0	4,385 7 9	15 5 9	27 4 11	36 0 9	...	44,558 9 6							
I. Salaries:—																						
(a) Superior Establish- ment.	2,375 0 0	...	...	...	...	...	...	...	...	...	...	...	...	...	2,375 0 0							
(b) Executive	...	476 12 0	85 9 0	459 15 9	1,020 0 0	...	...	...	830 0 0	...	...	...	...	...	3,772 4 0							
(c) Protective	75 12 0	1,537 6 3	936 0 8	1,727 4 0	...	914 6 0	513 2 3	979 15 9	182 7 0	...	368 4 9	...	...	81 10 7	7,318 4 6							
(d) Office	2,400 13 0	331 1 9	140 14 6	...	324 5 9	...	...	...	190 4 6	...	...	...	...	...	3,493 1 6							
(e) Pension contribu- tion.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...							
L. Travelling allowances —	467 5 0	...	...	...	...	...	...	...	...	...	...	...	...	...	467 5 0							
(a) Superior Establish- ment.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...							
(b) Executive	17 0 0	168 5 9	1 11 9	123 6 6	130 13 9	...	...	...	168 6 6	...	...	...	...	...	779 12 9							
(c) Protection	128 11 0	251 4 3	101 3 0	154 0 3	1 8 0	48 6 9	31 0 3	154 7 6	6 11 0	...	20 5 0	...	...	...	789 3 6							
(d) Office & feed of conveyance.	360 0 0	54 6 6	3 5 6	9 10 3	46 3 0	...	1 0 0	...	180 0 0	...	...	...	...	...	356 0 9							
(e) Keep & feed of conveyance.	...	180 0 0	...	173 11 6	180 0 0	...	...	...	...	...	...	...	...	...	1,254 13 6							
II —Contingencies:—	488 6 9	12 7 0	0 2 0	8 6 6	...	...	...	...	...	...	...	...	...	...	...							
(a) Stationary	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...							
(b) Charges of tents & records.	...	5 3 0	0 12 0	4 6 0	...	...	...	...	...	...	...	...	...	...	...							
(c) Kents, rates and horses.	...	5 15 0	...	...	...	...	...	...	...	...	...	...	...	...	...							
(d) Official postage	504 1 3	...	...	...	...	...	...	...	...	...	...	...	...	...	504 1 3							
(e) Sundries	1,234 9 0	3 12 0	44 15 6	20 11 0	...	...	...	...	...	...	...	...	...	...	1,396 0 9							
Total B Establishment ...	8,052 7 6	17,259 0 9	2,877 9 3	15,562 8 3	1,712 10 6	1,483 8 6	897 10 6	1,919 8 9	1,557 13 0	4,393 14 0	420 14 3	280 14 11	36 0 9	84 12 0	67,616 6 2							
Total A & B. ...	16,988 9 5	17,259 0 9	16,312 0 4	15,562 8 3	1,712 10 6	1,483 8 6	897 10 6	1,919 8 9	1,557 13 0	4,393 14 0	420 14 3	280 14 11	36 0 9	84 12 0	1,971 5 9							
dd Fuel & Fodder Re- serves.	123 12 9	...	...	...	...	...	...	...	...	...	...	...	...	...	1,283 9 1							
ology ...	1,239 9 1	...	...	...	...	...	...	...	...	...	...	...	...	...	...							
Total Forests	18,351 15 7	17,259 0 9	16,312 0 4	15,562 8 3	1,712 10 6	1,483 8 6	897 10 6	1,919 8 9	1,557 13 0	4,393 14 0	427 12 9	806 7 11	488 2 3	84 12 0	70,881 5 0							
dd Arboriculture	...	...	...	...	...	...	...	...	...	...	...	...	...	...	13,469 1 3							
dd Raj Department	...	...	...	...	...	...	...	...	...	...	...	...	...	...	84,350 6 3							
dd Raj Department	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1,313 1 6							
dd Raj Department	...	...	...	...	...	...	...	...	...	...	...	...	...	...	394 7 1							
dd Raj Department	...	...	...	...	...	...	...	...	...	...	...	...	...	...	41 10 6							
dd Raj Department	...	...	...	...	...	...	...	...	...	...	...	...	...	...	103 7 0							
dd Raj Department	...	...	...	...	...	...	...	...	...	...	...	...	...	...	103 5 0							
dd Raj Department	...	...	...	...	...	...	...	...	...	...	...	...	...	...	103 1 0							
GRAND TOTAL	...	...	...	...	...	...	...	...	...	...	...	...	...	...	86,409 2 3							

\* The Audit figures show Rs. 380-6-6 more under expenditure as well as under receipts of Forests for their having included the adjustment of misallocated items which show have been deviated from both the head:—

# ANNUAL FORM NO. 62.

Forest Department, Marwar State. Account current for the year 1915-16.

	Rs.	a. p.	Rs.	a. p.		Rs.	a. p.	Rs.	a. p.
Cash Balance (Imprest) ...	6,075	0 0	6,075	0 0	Imprest ...	...	...	6,075	0 0
Revenue as per Form No. 61:—					Remittances to Treasuries Forest revenue in cash and adjustment ...	...	...	...	...
Forest conservancy including geology Rs. 96,748-15-8.					Fuel and Fodder Reserves	96,748	15 8	...	...
Fuel and Fodder Reserves Rs. 1,008-9-3					Arboriculture	1,008	9 3	...	...
Arboriculture ...	97,757	8 11	...	...	Expenditure as per annual Form No 61:—	1,647	11 6	99,405	4 5
Advances by recoupement of Imprest expenses and direct payments from Treasuries and adjustment by book transfer ...	1,647	11 6	99,405	4 5	Forest conservancy including Geology Rs. 68,597-11-11.				
	...	...	86,284	10 9	Fuel and Fodder Reserves Rs. 1,283-9-1	70,881	5 0	...	...
					Arboriculture ...	13,469	1 3	...	...
					Grass storage expenditure through this office ...	1,934	4 6	86,284	10 9
Total ...	...	...	1,91,764	15 2	Total ...	...	...	1,91,764	15 2

Forest Department Marwar State. Revenue received and outstanding on account of revenue during the year 1915-16.

Ranges.	Particulars.	Balance at commencement of the year.	Value of sales.	Total	Realised during the year.	Balance.	Remarks.
Bali	Forest Conservancy	29,204	6 6 17,301	12 5 46,506	2 11 29,595	9 11 16,910	
Desuri	"	899	... 6,361	13 ... 7,260	11 9 5,820	1 3 1,440	
Sojat	"	1,921	14 3 26,655	6 ... 28,577	4 3 18,086	1 0 10,491	
Siwāna	"	42	15 ... 1,395	9 1,437	15 9 1,376	7 0 61	
Jalore	"	1	10 ... 1,891	6 1,892	10 6 1,833	14 0 58	
Jaswantpura	"	27,579	3 9 1,527	13 6 29,107	1 3 12,946	7 6 16,160	
Parbatsar	"	20	12 ... 628	12 3 649	8 3 649	... ...	
Pali	"	208	14 ... 2,697	11 6 2,906	9 6 1,057	1 0 1,849	
Jetaran	"	...	... 154	6 3 154	6 3 154	... ...	
Luni Barmer line	"	...	... 313	3 6 313	3 6 313	... ...	
Jodhpur	" and F.F.R. & Arboriculture &c.	4,105	12 9 28,235	12 6 32,341	9 3 27,571	1 0 4,770	
Total		63,984	8 3 87,162	12 2 151,147	4 5 99,405	0 0 51,742	

# ANNUAL FORM NO. 65.

Forest Department Marwar State. Financial Results for the year 1915-1916.

Range.	TIMBER AND OTHER PRODUCE REMOVED FROM THE FOREST BY RAJ. AGENCY.		OTHER REVENUE.		Formation protection and improvement of Forest charges.	TOTAL.		REMARKS.
	Receipts.	Charges.	Receipts.	Charges.		Receipts.	Charges.	
Jodhpur and Direction.	14,254	2,392	29,413	11,561	4,394	43,667	18,352	
{ Godhwar	11,104	11,597	6,581	3,694	1,021	17,682	16,312	
{ Desuri,	1,988	2,499	3,608	1,638	93	5,896	4,230	
{ Sojat	8,027	10,812	4,875	4,527	404	12,902	15,803	
General	.....	....	.....	1,729	.....	.....	1,729	
{ Siwana,	597	289	779	1,177	18	1,376	1,484	
{ Jalore.	118	177	1,716	622	106	1,834	905	
{ Jaswantpura,	632	617	1,189	1,190	113	2,121	1,920	
General	.....	.....	.....	1,713	.....	.....	1,713	
{ Jodhpur	10,104	4,279	.....	627	67	10,104	4,973	
{ Parbatsar	3	.....	647	422	6	650	428	
{ Fali	1,048	240	10	566	.....	1,058	806	
{ Luni-Barmes	313	25	.....	463	.....	313	488	
{ Jetaran	.....	.....	154	85	.....	154	85	
General	.....	16	.....	1,638	.....	.....	1,654	
	48,185	32,018	49,572	31,652	6,282	97,757	70,882	

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